

# UNIVERSITY PROGRAM MANAGEMENT INFORMATION SYSTEM

**FY 2000**

**Prepared by:**

**Office of Human Resources and Education  
Education Division/FE**

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## **IMPORTANT NOTICE**

This report is compiled primarily from information obtained from two internal NASA sources:

1. "CASE Report on Support of Colleges and Universities" (NASA Form 1356).
2. "Individual Procurement Action Report" (NASA Form 507).

Therefore, other sources should be used for completing Forms 507 and 1356.

Information in this publication is reviewed and revised for accuracy. Should any differences exist between publications, the latest edition should take precedence over earlier ones.



# **NASA's UNIVERSITY PROGRAM**

## **ACTIVE PROJECTS**

**FISCAL YEAR 2000**

**Gary Gans, Project Manager**

**National Aeronautics and Space Administration  
Office of Human Resources and Education  
Education Division/FE  
Washington, DC 20546-0001**

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## FOREWORD

As basic policy, NASA believes that colleges and universities should be encouraged to participate in the nation's space and aeronautics program to the maximum extent practicable. Indeed, universities are considered as partners with government and industry in the nation's aerospace program. NASA's objective is to have them bring their scientific, engineering, and social research competence to bear on aerospace problems and on the broader social, economic, and international implications of NASA's technical and scientific programs. It is expected that, in so doing, universities will strengthen both their research and their educational capabilities to contribute more effectively to the national well being.

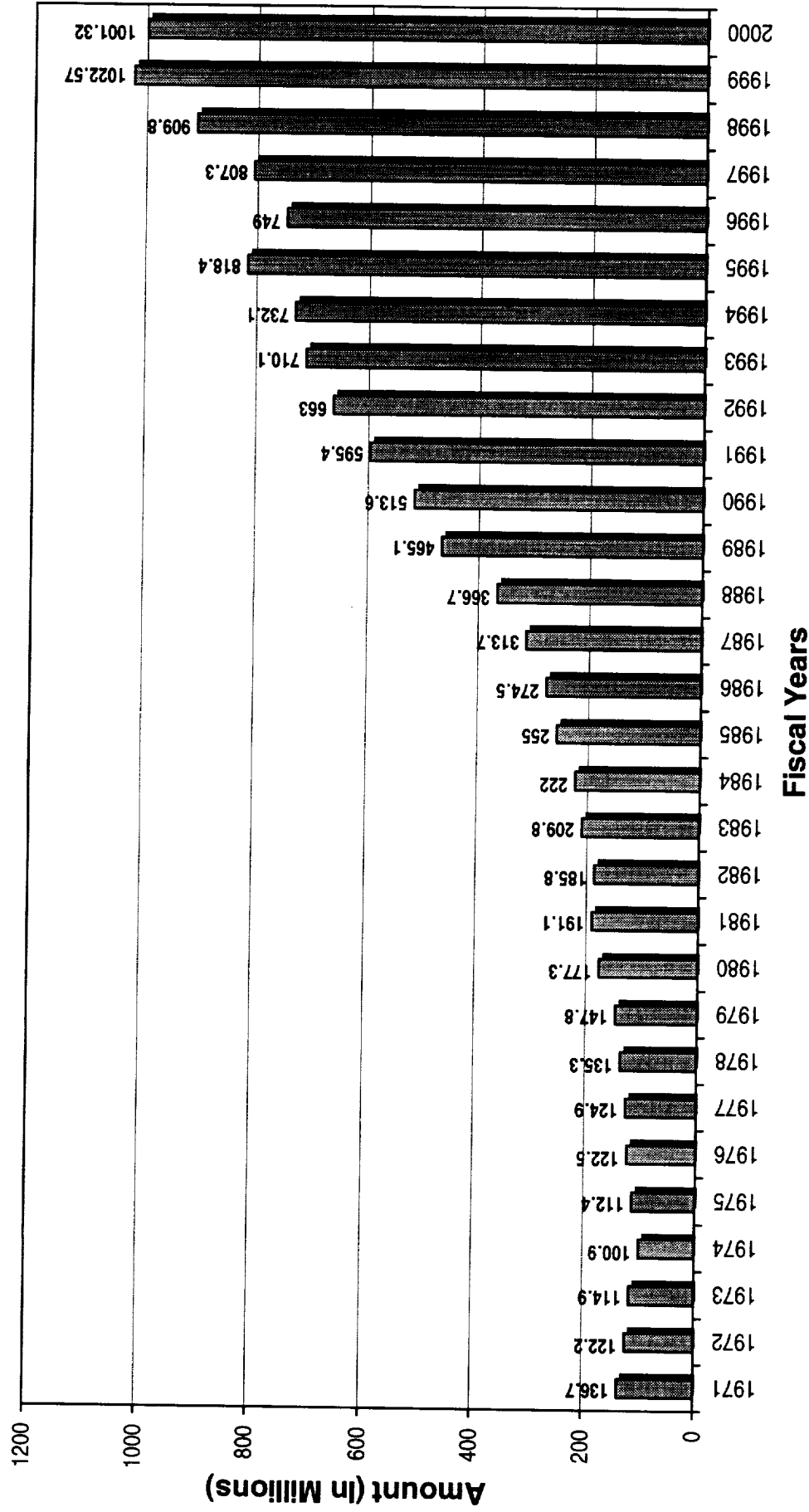
This annual report is one means of documenting the NASA-university relationship, frequently denoted, collectively, as NASA's University Program. This report is consistent with agency accounting records, as the data is obtained from NASA's Financial and Contractual Status (FACS) System, operated by the Financial Management Division and the Procurement Office. However, in accordance with interagency agreements, the orientation differs from that required for financial or procurement purposes. Any apparent discrepancies between this report and other NASA procurement or financial reports stem from the selection criteria for the data.\*

This report was prepared by the Education Division/FE, Office of Human resources and Education.

\* Agreements which meet active criteria definition and have deobligations may result in agreements having negative obligations in the body of this publication.

# NASA Obligations to Universities

## Fiscal Years 1971-2000



NOTE: Excludes awards to California Institute of Technology for operation of the Jet Propulsion Laboratory.

FY 1971 includes \$15.0M in awards to Draper Lab.  
 FY 1972 includes \$5.7M in awards to Draper Lab.

FY 1973 includes \$5.2M in awards to Draper Lab.  
 FY 1974 Draper Lab status changed from "university" to "nonprofit."

**FIFTY EDUCATIONAL INSTITUTIONS  
LISTED ACCORDING TO TOTAL OBLIGATIONS – FY2000**

	INSTITUTION	OBLIGATIONS 1,001,322,453	PERCENT 100.00
<b>TOTALS*</b>			
1	Johns Hopkins University .....	95,891,969	9.58
2	University of Colorado – Boulder .....	59,173,201	5.91
3	Stanford University .....	48,097,994	4.80
4	University of Maryland – College Park .....	36,103,953	3.61
5	California Institute of Technology .....	29,173,945	2.91
6	University of California – Berkeley .....	23,709,744	2.37
7	University of Alabama – Huntsville .....	22,672,993	2.26
8	Massachusetts Institute of Technology .....	21,341,300	2.13
9	University of California – San Diego .....	21,336,505	2.13
10	University of Arizona .....	18,074,882	1.81
11	Baylor College of Medicine .....	16,820,822	1.68
12	University of Alaska – Fairbanks .....	16,150,535	1.61
13	University of Missouri - Columbia .....	16,122,389	1.61
14	Pennsylvania State University – University Park .....	15,737,525	1.57
15	New Mexico State University – Las Cruces .....	14,764,907	1.47
16	University of Alabama – Birmingham .....	13,329,377	1.33
17	University of Wisconsin – Madison .....	12,193,159	1.22
18	Columbia University .....	11,553,921	1.15
19	University of Texas – Austin .....	10,776,687	1.08
20	University of California – Los Angeles .....	10,214,301	1.02
21	University of Hawaii – Honolulu .....	10,195,711	1.02
22	Cayuga Community College .....	10,102,500	1.01
23	Wheeling Jesuit University .....	9,307,353	0.93
24	University of Washington .....	8,768,625	0.88
25	Harvard University .....	8,253,889	0.82
26	University of New Hampshire – Durham .....	8,192,626	0.82
27	Carnegie-Mellon University .....	8,103,195	0.81
28	University of Houston – Clear Lake .....	7,936,820	0.79
29	University of Michigan – Ann Arbor .....	7,930,153	0.79
30	University of California – Santa Barbara .....	7,703,075	0.77
31	Oklahoma State University .....	7,647,370	0.76
32	Mississippi State University .....	7,562,537	0.76
33	Utah State University .....	7,542,295	0.75
34	University of California – Irvine .....	7,493,808	0.75
35	San Jose State University .....	6,956,081	0.69
36	Oregon State University .....	6,777,635	0.68
37	University of Maryland – Baltimore County .....	6,519,387	0.65
38	Hampton University .....	6,079,214	0.61
39	Cornell University .....	6,024,402	0.60
40	University of New Mexico – Albuquerque .....	5,897,746	0.59
41	Texas A&M University College STA .....	5,808,024	0.58
42	University of Miami .....	5,193,126	0.52
43	University of Virginia .....	5,075,249	0.51
44	Auburn University - Auburn .....	5,053,023	0.50
45	Case Western Reserve .....	4,715,267	0.47
46	University of Iowa .....	4,666,980	0.47
47	University of Minnesota – Twin Cities .....	4,626,793	0.46
48	Princeton University .....	4,616,633	0.46
49	University of Southern Cal .....	4,560,005	0.46
50	Georgia Institute of Technology .....	4,554,827	0.45
	Other Colleges & Universities** .....	284,217,995	28.38

\* Excludes awards to California Institute of Technology for operation of the Jet Propulsion Laboratory.

\*\* Includes both foreign and domestic universities and colleges.

**STATES AND U.S. TERRITORIES BY OBLIGATIONS**  
**FISCAL YEAR 2000 (October 1, 1999 through September 30, 2000)**

STATE		OBLIGATIONS (WHOLE DOLLARS)	PERCENT
<b>TOTALS*</b>		<b>1,000,423,081</b>	<b>100.00</b>
1	California .....	180,389,686	18.03
2	Maryland .....	146,085,231	14.60
3	Colorado .....	68,380,306	6.84
4	Texas .....	60,706,627	6.07
5	Alabama .....	48,958,232	4.89
6	New York .....	42,842,733	4.28
7	Massachusetts .....	42,767,415	4.27
8	Pennsylvania .....	30,468,277	3.05
9	Virginia .....	24,073,420	2.41
10	Florida .....	23,831,897	2.38
11	New Mexico .....	23,151,121	2.31
12	Arizona .....	23,073,130	2.31
13	Missouri .....	21,185,073	2.12
14	Ohio .....	20,458,553	2.04
15	Alaska .....	16,150,535	1.61
16	Georgia .....	14,514,172	1.45
17	Wisconsin .....	13,040,265	1.30
18	West Virginia .....	12,910,819	1.29
19	Mississippi .....	12,239,902	1.22
20	Michigan .....	11,856,215	1.19
21	New Jersey .....	11,232,320	1.12
22	Illinois .....	10,430,710	1.04
23	Hawaii .....	10,195,335	1.02
24	Washington .....	10,124,361	1.01
25	Utah .....	9,960,449	1.00
26	New Hampshire .....	9,820,273	0.98
27	Oklahoma .....	9,352,277	0.93
28	North Carolina .....	8,564,007	0.86
29	Oregon .....	7,567,585	0.76
30	Iowa .....	6,936,047	0.69
31	District of Columbia .....	6,635,505	0.66
32	Montana .....	6,448,312	0.64
33	Tennessee .....	6,429,106	0.64
34	Minnesota .....	4,699,193	0.47
35	Louisiana .....	4,673,944	0.47
36	Connecticut .....	4,299,711	0.43
37	Rhode Island .....	4,298,633	0.43
38	South Carolina .....	4,263,994	0.43
39	Indiana .....	4,074,328	0.41
40	Kansas .....	3,752,665	0.38
41	Puerto Rico .....	3,698,057	0.37
42	Kentucky .....	2,844,106	0.28
43	North Dakota .....	2,764,365	0.28
44	Delaware .....	2,274,304	0.23
45	Nebraska .....	1,849,091	0.18
46	Arkansas .....	1,346,779	0.13
47	South Dakota .....	989,846	0.10
48	Nevada .....	947,388	0.09
49	Idaho .....	819,259	0.08
50	Wyoming .....	777,922	0.08
51	Maine .....	709,479	0.07
52	Vermont .....	560,121	0.06

\* Starting in FY 1993, Active Actions with deobligations will be reported in this chart.

# RESEARCH AND DEVELOPMENT PERCENT CHANGE REPORT 1996-2000 \*

FIELDS OF SCIENCE	FY 2000 (\$1000)	% CHANGE FY 99-00	FY 1999 (\$1000)	% CHANGE FY 98-99	FY 1998 (\$1000)	% CHANGE FY 97-98	FY 1997 (\$1,000)	% CHANGE FY 96-97	FY 1996 (\$1,000)
<b>ALL FIELDS TOTAL</b>	<b>845,071</b>	<b>-5.67%</b>	<b>895,887</b>	<b>13.89%</b>	<b>786,597</b>	<b>9.40%</b>	<b>719,008</b>	<b>8.20%</b>	<b>664,507</b>
<b>Physical Sciences, Total</b>	<b>333,949</b>	<b>-16.93%</b>	<b>402,015</b>	<b>17.10%</b>	<b>343,314</b>	<b>18.22%</b>	<b>290,413</b>	<b>-7.50%</b>	<b>313,954</b>
Astronomy	220,125	-16.81%	264,612	30.91%	202,138	46.99%	137,522	-17.15%	165,989
Chemistry	7,504	-8.67%	8,216	-21.01%	10,401	-13.88%	12,078	280.65%	3,173
Physics	82,759	-24.77%	110,015	-1.65%	111,857	-7.42%	120,828	3.86%	116,336
Physical Sciences, Other*	23,561	22.89%	19,172	1.34%	18,918	-5.34%	19,985	-29.77%	28,456
<b>Mathematical &amp; Computer Sciences, Total</b>	<b>23,257</b>	<b>-20.06%</b>	<b>29,092</b>	<b>30.24%</b>	<b>22,337</b>	<b>-8.97%</b>	<b>24,538</b>	<b>-12.78%</b>	<b>28,133</b>
Mathematics	693	-54.26%	1,515	85.66%	816	-61.89%	2,141	234.01%	641
Computer Sciences	18,660	-23.96%	24,539	46.44%	16,757	-5.59%	17,750	-18.91%	21,889
Math. & Computer Sciences, Other*	3,904	28.51%	3,038	-36.23%	4,764	2.52%	4,647	-17.06%	5,603
<b>Environmental Sciences, Total</b>	<b>195,752</b>	<b>-8.25%</b>	<b>213,346</b>	<b>0.38%</b>	<b>212,543</b>	<b>8.82%</b>	<b>195,315</b>	<b>45.61%</b>	<b>134,136</b>
Atmospheric Sciences	78,652	-4.16%	82,069	37.58%	59,650	-17.79%	72,557	36.73%	53,064
Geological Sciences	14,955	9.03%	13,716	-32.29%	20,257	21.42%	16,684	-8.74%	18,281
Oceanography	9,740	14.70%	8,492	-6.62%	9,094	-22.42%	11,722	7.70%	10,884
Environmental Sciences, Other*	92,405	-15.28%	109,069	-11.72%	123,542	30.94%	94,352	81.77%	51,907
<b>Engineering Total</b>	<b>148,613</b>	<b>21.93%</b>	<b>121,886</b>	<b>15.83%</b>	<b>105,231</b>	<b>-2.71%</b>	<b>108,159</b>	<b>10.07%</b>	<b>98,268</b>
Aeronautical Engr	41,579	23.75%	33,600	-9.02%	36,930	-4.34%	38,605	6.48%	36,255
Astronautical Engr	37,230	64.09%	22,689	18.31%	18,310	0.84%	18,158	27.69%	14,220
Chemical Engr	2,287	33.20%	1,717	-5.30%	1,813	3.36%	1,754	-2.77%	1,803
Civil Engr	78	-16.13%	93	0.00%	0	-100.00%	321	73.51%	185
Electrical Engr	7,360	-7.76%	7,979	-7.60%	8,635	-1.33%	8,751	-7.93%	9,505
Mechanical Engr	11,807	-10.65%	13,214	36.25%	9,698	-4.01%	10,103	-16.06%	12,036
Metal and Materials Engr	12,753	7.55%	11,858	9.16%	10,863	-18.73%	13,366	-0.46%	13,428
Engineering, Other*	35,518	15.56%	30,736	61.92%	18,982	11.00%	17,101	57.82%	10,836
<b>Life Sciences, Total</b>	<b>61,881</b>	<b>5.32%</b>	<b>58,757</b>	<b>12.83%</b>	<b>52,076</b>	<b>-13.84%</b>	<b>60,444</b>	<b>-5.19%</b>	<b>63,755</b>
Biological, Total	28,109	34.62%	20,881	33.51%	15,640	-20.85%	19,759	-48.71%	38,527
Biology (Excluding Envir.)	22,078	17.86%	18,732	37.76%	13,598	-24.88%	18,101	-48.18%	34,931
Environmental Biology	4,624	256.79%	1,296	-0.77%	1,306	46.74%	890	-58.97%	2,169
Agricultural Sciences	1,407	64.95%	853	15.90%	736	-4.17%	768	-46.18%	1,427
Medical Sciences	6,009	-1.25%	6,085	-9.88%	6,752	16.63%	5,789	-28.13%	8,055
Life Sciences, Other*	27763	-12.67%	31,791	7.10%	29,684	-14.94%	34,896	103.20%	17,173
<b>Psychology Total</b>	<b>4,292</b>	<b>-44.81%</b>	<b>7,777</b>	<b>24.27%</b>	<b>6,258</b>	<b>9.29%</b>	<b>5,726</b>	<b>58.00%</b>	<b>3,624</b>
Biological Aspects	955	36.82%	698	2485.19%	27	0.00%	0	0.00%	0
Social Aspects	1,293	-26.32%	1,755	53.14%	1,146	-5.37%	1,211	132.44%	521
Psychological Sciences, Other*	2,045	-61.59%	5,324	4.70%	5,085	12.62%	4,515	45.50%	3,103
<b>Social Sciences, Total</b>	<b>977</b>	<b>185.67%</b>	<b>342</b>	<b>14.38%</b>	<b>299</b>	<b>11.99%</b>	<b>267</b>	<b>97.78%</b>	<b>135</b>
Economics	0	0.00%	0	0.00%	0	-100.00%	13	0.00%	0
History	11	-35.29%	17	0.00%	0	0.00%	10	0.00%	0
Political Science	0	0.00%	0	0.00%	0	0.00%	52	0.00%	0
Social Sciences, Other*	966	197.23%	325	8.70%	299	55.73%	192	42.22%	135
<b>Other Sciences** Total</b>	<b>76,350</b>	<b>21.82%</b>	<b>62,672</b>	<b>40.71%</b>	<b>44,539</b>	<b>30.44%</b>	<b>34,146</b>	<b>51.75%</b>	<b>22,502</b>

Table does not include awards to foreign universities or awards to California Institute of Technology for operation of the Jet Propulsion Laboratories.

\* This report does not include other activities related to science and engineering, R&D plant and equipment, nor training grants.

\*\* This chart does not include agreements with Fiscal Year obligations less than zero.

Prior year's data are reviewed for consistency, and when necessary, are revised. Prior year's data should be restricted to this chart.

# FY2000 OBLIGATIONS BY FIELD OF SCIENCE OR ENGINEERING

			% OF ALL SCI. & ENGR.
<b>ENGINEERING</b>	<b>Total</b>	<b>%</b>	
41-AERONAUTICAL	\$ 57,589,017	33.5%	
42-ASTRONAUTICAL	\$ 37,707,162	21.9%	
43-CHEMICAL	\$ 2,428,953	1.4%	
45-ELECTRICAL	\$ 7,332,831	4.3%	
46-MECHANICAL	\$ 12,647,544	7.4%	
47-METALLURGY&MATERIALS	\$ 12,907,470	7.5%	
ENGINEERING NEC*	\$ 41,442,352	24.1%	
<b>Total</b>	<b>\$ 172,055,329</b>	<b>.....</b>	<b>17.2%</b>
<b>ENVIRONMENTAL SCIENCES</b>	<b>Total</b>	<b>%</b>	
31-ATMOSPHERIC SCIENCES	\$ 81,035,930	38.5%	
32-GEOLOGICAL SCIENCES	\$ 14,981,105	7.1%	
33-OCEANOGRAPHY	\$ 10,638,775	5.1%	
39-ENVIRONMENTAL SCI*	\$ 104,003,899	49.4%	
<b>Total</b>	<b>\$ 210,659,709</b>	<b>.....</b>	<b>21.0%</b>
<b>LIFE SCIENCES</b>	<b>Total</b>	<b>%</b>	
51-BIOLOGICAL SCI	\$ 37,109,231	39.9%	
54-ENV. BIOLOGY	\$ 4,930,326	5.3%	
55-AGRIC. SCIENCES	\$ 1,570,640	1.7%	
56-MEDICAL SCIENCES	\$ 43,237,555	46.5%	
59-LIFE SCIENCES, NEC**	\$ 6,103,365	6.6%	
<b>Total</b>	<b>\$ 92,951,117</b>	<b>.....</b>	<b>9.3%</b>
<b>MATH/COMPUTER</b>	<b>Total</b>	<b>%</b>	
21-MATHEMATICS	\$ 1,508,815	5.8%	
22-COMPUTER SCI.	\$ 19,214,713	73.9%	
29-MATH/COMP NEC*	\$ 5,263,952	20.3%	
<b>Total</b>	<b>\$ 25,987,480</b>	<b>.....</b>	<b>2.6%</b>
<b>PHYSICAL SCIENCES</b>	<b>Total</b>	<b>%</b>	
11-ASTRONOMY	\$ 223,794,649	65.7%	
12-CHEMISTRY	\$ 7,606,967	2.2%	
13-PHYSICS	\$ 84,987,856	24.9%	
19-PHYS SCI-NEC*	\$ 24,266,080	7.1%	
<b>Total</b>	<b>\$ 340,655,552</b>	<b>.....</b>	<b>34.0%</b>
<b>PSYCHOLOGY</b>	<b>Total</b>	<b>%</b>	
61-BIOLOGICAL	\$ 976,636	22.1%	
62-SOCIAL ASPECTS	\$ 1,286,482	29.1%	
69-PSYCHOLOGY, NEC*	\$ 2,159,875	48.8%	
<b>Total</b>	<b>\$ 4,422,993</b>	<b>.....</b>	<b>0.4%</b>
<b>SOCIAL SCIENCES</b>	<b>Total</b>	<b>%</b>	
79-SOCIAL SCIENCE, NEC*	\$ 1,600,566	100.0%	
<b>Total</b>	<b>\$ 1,600,566</b>	<b>.....</b>	<b>0.2%</b>
<b>OTHER DISCIPLINES**</b>	<b>Total</b>	<b>%</b>	
99-ALL-DISCIPLINE(S)	\$ 152,989,707	100.0%	
<b>Total</b>	<b>\$ 152,989,707</b>	<b>.....</b>	<b>15.3%</b>
<b>GRAND TOTAL OF ALL SCIENCE &amp; ENGINEERING</b>	<b>Total</b>		
	<b>\$ 1,001,322,453</b>		<b>100.0%</b>

\*NOT ELSEWHERE CLASSIFIED

\*\*CANNOT BE CLASSIFIED WITHIN THE FIELDS



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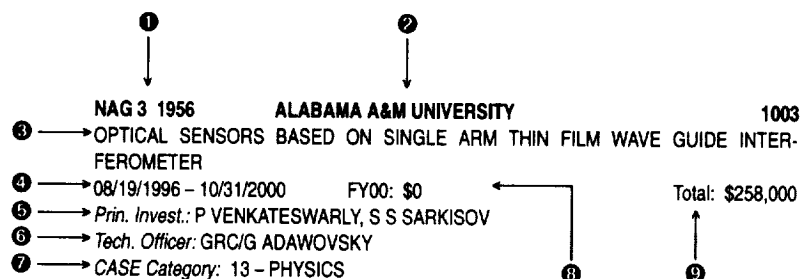
This report includes data on projects active during Fiscal Year 2000.

Alabama .....	1	Nebraska .....	333
Alaska .....	18	Nevada .....	335
Arizona .....	21	New Hampshire .....	336
Arkansas .....	41	New Jersey .....	343
California .....	42	New Mexico .....	353
Colorado .....	122	New York .....	359
Connecticut .....	147	North Carolina .....	386
Delaware .....	151	North Dakota .....	396
District of Columbia .....	154	Ohio .....	397
Florida .....	163	Oklahoma .....	417
Georgia .....	181	Oregon .....	419
Hawaii .....	193	Pennsylvania .....	423
Idaho .....	200	Rhode Island .....	444
Illinois .....	201	South Carolina .....	448
Indiana .....	215	South Dakota .....	452
Iowa .....	222	Tennessee .....	453
Kansas .....	227	Texas .....	460
Kentucky .....	230	Utah .....	487
Louisiana .....	232	Vermont .....	492
Maine .....	238	Virginia .....	493
Maryland .....	238	Washington .....	516
Massachusetts .....	272	West Virginia .....	527
Michigan .....	302	Wisconsin .....	528
Minnesota .....	315	Wyoming .....	538
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# USER'S GUIDE

The University Program Report provides current information and related statistics for each grant/contract/cooperative agreement active during the report period. The following guidance is provided as an aid to the reader in readily locating material of interest and in optimizing the use of this document.

## I. Typical Citation



### KEY

1. Agreement number\*
2. Institution name
3. Brief work description
4. Approximate period of performance
5. Principal investigator(s) at the educational institution
6. NASA Technical Officer(s) and organizational location
7. CASE Field of Science and Engineering code and name
8. Amount (if any) actually provided during the indicated fiscal year
9. Total amount actually provided during the indicated period of performance

\* Uniquely identifies project. Prefixes denote type of instrument as follows:

Grants: NAG, NAGW, NGF, NGT, NGL, NGR, NSG  
Cooperative Agreements: NCC, NCCW  
Contracts: DEN, NAS, NASR, NASW, NSR  
Space Act Agreements: NCA

NASA installations are included in the citation as abbreviations (item 7). The following listing of installations will be useful to those desiring further information on specific projects.

Dr. Ramona E. Pelletier Travis SSC  
**John C. Stennis Space Center**  
 Code FA00, Building 1100  
 Stennis Space Center, MS 39529  
 Phone: (228) 688-3832  
 Fax: (228) 688-7499  
 E-mail: [Ramona.Travis@ssc.nasa.gov](mailto:Ramona.Travis@ssc.nasa.gov)

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### **III. CASE**

The National Science Foundation (NSF) operates a government-wide system originally designed by the Committee on Academic Science and Engineering (CASE) of the Federal Council for Science and Technology. Participating agencies report annually to NSF, which in turn issues the statistical report, Federal Science and Engineering Support to Universities, Colleges and Nonprofit Institutions.

Since its inception, this survey system has been the sole source of data on Federal funding to individual institutions for Science and Engineering (S&E) activities.

### **IV. Cross-Index**

The cross-indexed Appendix provides rapid access to all projects in a particular area of endeavor, and is also easily used to determine the institutions and principal investigators conducting NASA projects.

## ALABAMA

**NAG 2 1130 ALABAMA A&M UNIVERSITY 1000**  
 IRON-ION INDUCED LOW DOSE MUTAGENESIS  
 06/11/1997 - 06/30/2001 FY00: \$79,961 Total: \$359,883  
 Prin. Invest.: P G KALE  
 Tech. Officer: ARC/B J COLLINS, ARC/P X CALLAHAN  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 2 1160 ALABAMA A&M UNIVERSITY 1001**  
 ADAPTATION OF LEAF SPECTROREFLECTOMETRY & NEURAL NETWORK ANALYSIS APPROACHES FOR DETECTION & DISCRIMINATION OF .....  
 09/07/1997 - 02/29/2000 FY00: \$0 Total: \$129,976  
 Prin. Invest.: C A BEYL, G C SHARMA  
 Tech. Officer: ARC/M H KLISS, ARC/D L BUBENHEIM  
 CASE Category: 55 - AGRICULTURE

**NAG 2 1175 ALABAMA A&M UNIVERSITY 1002**  
 NEURAL NETWORK ANALYSIS OF LEAF MULTISPECTRAL REFLECTANCE FOR DETECTION & DISCRIMINATION OF .....  
 02/03/1998 - 08/31/2001 FY00: \$199,940 Total: \$299,752  
 Prin. Invest.: C A BEYL  
 Tech. Officer: ARC/M H KLISS, ARC/G S LEE  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NAG 3 1956 ALABAMA A&M UNIVERSITY 1003**  
 OPTICAL SENSORS BASED ON SINGLE ARM THIN FILM WAVE GUIDE INTERFEROMETER  
 08/19/1996 - 10/31/2000 FY00: \$0 Total: \$258,000  
 Prin. Invest.: P VENKATESWARLY, S S SARKISOV  
 Tech. Officer: GRC/G ADAWOVSKY  
 CASE Category: 13 - PHYSICS

**NAG 3 2123 ALABAMA A&M UNIVERSITY 1004**  
 DEVELOPMENT OF A STABLE ELEVATED TEMPERATURE SILICON CARBIDE SENSOR  
 02/19/1998 - 01/05/1999 FY00: -\$743 Total: \$143,257  
 Prin. Invest.: D ILA  
 Tech. Officer: GRC/J LARKIN  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2302 ALABAMA A&M UNIVERSITY 1005**  
 DEVELOPMENT OF IMPROVED HIGH TEMPERATURE SILICON CARBIDE SENSORS  
 12/13/1999 - 11/02/2001 FY00: \$99,568 Total: \$99,568  
 Prin. Invest.: D ILA, M A GEORGE  
 Tech. Officer: GRC/D J LARKIN, GRC/R LAWRENCE  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 9885 ALABAMA A&M UNIVERSITY 1006**  
 STUDENT REFLECTION GPS EXPERIMENT  
 08/24/2000 - 02/14/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: A MANU  
 Tech. Officer: GSFC/C PERSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1125 ALABAMA A&M UNIVERSITY 1007**  
 DEVELOPMENT OF UPCONVERSION MATERIALS, LASERS, AND OPTICAL SENSORS  
 02/27/1995 - 12/31/1998 FY00: -\$4,466 Total: \$389,109  
 Prin. Invest.: B R REDDY  
 Tech. Officer: MSFC/W J LOVE  
 CASE Category: 13 - PHYSICS

**NAG 8 1192 ALABAMA A&M UNIVERSITY 1008**  
 A COLLABORATIVE PROGRAM FOR ENHANCING STUDENTS WITH DISABILITIES  
 09/13/1995 - 09/30/1999 FY00: -\$1,483 Total: \$209,455  
 Prin. Invest.: D CRAWFORD  
 Tech. Officer: MSFC/S MILLER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1335 ALABAMA A&M UNIVERSITY 1009**  
 R/S "AN INNOVATIVE APPROACH FOR VORTEX TUBE FLOW ANALYSIS AND APPLICATION IN FILM COOLING"  
 03/26/1997 - 05/25/2001 FY00: \$0 Total: \$300,000  
 Prin. Invest.: K HE  
 Tech. Officer: MSFC/A CHOW  
 CASE Category: 13 - PHYSICS

**NAG 8 1365 ALABAMA A&M UNIVERSITY 1010**  
 R/S "AN UNCONVENTIONAL THREE-DIMENSIONAL COMPUTATION OF TRANSITIONAL AERODYNAMICS FOR RLVS"  
 05/28/1997 - 05/31/1999 FY00: \$0 Total: \$338,495  
 Prin. Invest.: G S KUAB  
 Tech. Officer: MSFC/L FOSTER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1366 ALABAMA A&M UNIVERSITY 1011**  
 R/S "CURRICULUM ADJUSTMENTS IN MATHEMATICS FOR SCIENCE & ENGINEERING PROGRAMS"  
 05/28/1997 - 11/30/1999 FY00: \$0 Total: \$374,547  
 Prin. Invest.: E C TEMPLE  
 Tech. Officer: MSFC/A HENDERSON  
 CASE Category: 21 - MATHEMATICS

**NAG 8 1390 ALABAMA A&M UNIVERSITY 1012**  
 R/S "BULK AND THIN FILM ORGANIC NONLINEAR OPTICAL CRYSTALS FOR DEVICES AND MICROGRAVITY PROCESSING"  
 07/23/1997 - 07/22/2000 FY00: \$0 Total: \$200,000  
 Prin. Invest.: M D AGGARWAL  
 Tech. Officer: MSFC/D FRAZIER, MSFC/W J LOVE  
 CASE Category: 13 - PHYSICS

**NAG 8 1400 ALABAMA A&M UNIVERSITY 1013**  
 EFFECT OF DOPANTS ON THE GROWTH & PROPERTIES OF MIXED ORGANIC CRYSTALS FOR NON-LINEAR OPTICAL APPS  
 09/19/1997 - 08/31/2000 FY00: \$0 Total: \$209,745  
 Prin. Invest.: B PENN  
 Tech. Officer: MSFC/B PENN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1497 ALABAMA A&M UNIVERSITY 1014**  
 COMPUTER MODEL OF THE TVC ELECTROMECHANICAL ACTUATOR  
 06/10/1999 - 05/31/2002 FY00: \$83,582 Total: \$165,156  
 Prin. Invest.: A BOND  
 Tech. Officer: MSFC/J MONTENEGRO  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 8 1498 ALABAMA A&M UNIVERSITY 1015**  
 ELECTRO-OPTIC MODULATOR BASED ON ORGANIC PLANAR WAVEGUIDE INTEGRATED WITH PRISM COUPLER  
 06/24/1999 - 05/30/2001 FY00: \$120,000 Total: \$240,000  
 Prin. Invest.: S SARKISOV  
 Tech. Officer: MSFC/B PENN  
 CASE Category: 13 - PHYSICS

# NASA'S UNIVERSITY PROGRAM

**NAG 8 1541 ALABAMA A&M UNIVERSITY 1016**  
CYTOGENETIC INVESTIGATIONS INTO RADIOSENSITIVITY  
07/17/1998 - 07/16/2000 FY00: \$105,946 Total: \$204,804  
Prin. Invest.: D KALE  
Tech. Officer: MSFC/R C RICHMOND  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1580 ALABAMA A&M UNIVERSITY 1017**  
MATHEMATICAL SAFETY ANALYSIS  
09/30/1999 - 09/30/2001 FY00: \$20,000 Total: \$119,956  
Prin. Invest.: M A ELSHAMY  
Tech. Officer: MSFC/D O FRAZIER  
CASE Category: 21 - MATHEMATICS

**NAG 8 1614 ALABAMA A&M UNIVERSITY 1018**  
RESEARCH ENTITLED: INVESTIGATION OF STRUCTURAL PROPERTIES OF COMPOSITE SMART MATERIALS .  
09/09/1999 - 10/15/2002 FY00: \$0 Total: \$98,634  
Prin. Invest.: A SHARMA  
Tech. Officer: MSFC/G MYERS  
CASE Category: 46 - MECHANICAL ENGR

**NAG 8 1620 ALABAMA A&M UNIVERSITY 1019**  
FASAT REACTION SPATIAL-TEMPORAL LIGHT MODULATORS FOR OPTICAL RECOGNITION AND IMAGE PROCESSING.  
08/25/1999 - 08/25/2001 FY00: \$93,196 Total: \$186,392  
Prin. Invest.: N KUKHTAREV, T KUHTEREVA  
Tech. Officer: MSFC/B G PENN  
CASE Category: 13 - PHYSICS

**NAG 8 1623 ALABAMA A&M UNIVERSITY 1020**  
INNOVATIVE EXPLORATION OF SEMIORGANIC NONLINEAR OPTICAL MATERIALS FOR OPTICAL PROCESSING APPLIC.  
09/24/1999 - 09/23/2001 FY00: \$20,000 Total: \$120,000  
Prin. Invest.: M D AGGARWAL  
Tech. Officer: MSFC/B PENN  
CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 8 1624 ALABAMA A&M UNIVERSITY 1021**  
INVESTIGATION OF MICROBIAL LIFE IN PLAR ICE AND PERMA FROST  
08/13/1999 - 09/14/2000 FY00: \$0 Total: \$100,000  
Prin. Invest.: M G TADROS  
Tech. Officer: MSFC/R HOOVER  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1626 ALABAMA A&M UNIVERSITY 1022**  
RESEARCH ENTITLED: "HYPERSONIC NON-EQUILIBRIUM FLOWS WITH LOW REYNOLDS EFFECT"  
09/16/1999 - 10/30/2001 FY00: \$0 Total: \$99,282  
Prin. Invest.: G S LIJAW, NONE  
Tech. Officer: MSFC/L CHOU, MSFC/W J LOVE  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1642 ALABAMA A&M UNIVERSITY 1023**  
HIGH SCHOOL/HIGH-TECH CAREER DEVELOPMENT PROGRAM IN MATH-EMATICS, SCIENCE ENGINEERING, ADN TECH.  
09/30/1999 - 09/29/2001 FY00: \$27,300 Total: \$88,999  
Prin. Invest.: B CRAWFORD  
Tech. Officer: MSFC/W LOVE  
CASE Category: 21 - MATHEMATICS

**NAG 8 1643 ALABAMA A&M UNIVERSITY 1024**  
ENHANCEMENT OF STUDENTS IN SCIENCE, ENGINEERING, AND MATH-EMATICS.  
09/27/1999 - 09/29/2001 FY00: \$21,523 Total: \$119,319  
Prin. Invest.: E TEMPLE  
Tech. Officer: MSFC/J DOWDY  
CASE Category: 21 - MATHEMATICS

**NAG 8 1655 ALABAMA A&M UNIVERSITY 1025**  
PRODUCTION OF ULTRA-LIGHT MIRRORS  
03/20/2000 - 03/19/2003 FY00: \$213,819 Total: \$213,819  
Prin. Invest.: D ILA  
Tech. Officer: MSFC/W LOVE  
CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 1095 ALABAMA A&M UNIVERSITY 1026**  
MICROBIAL VIABILITY AND BIOCIDES EFFICIENCY STUDIES FOR THE INTER SPACE STATION  
03/31/1999 - 03/31/2001 FY00: \$100,000 Total: \$200,000  
Prin. Invest.: M TADROS  
Tech. Officer: JSC/D PIERSON, JSC/L AREMNDARIZ  
CASE Category: 13 - PHYSICS

**NAG10 245 ALABAMA A&M UNIVERSITY 1027**  
MISSION PLANNING AND RISK MANAGEMENT  
04/06/1998 - 04/08/2001 FY00: \$96,881 Total: \$292,002  
Prin. Invest.: M ELSHAMY  
Tech. Officer: KSC/R TILLEY  
CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NCC 3 736 ALABAMA A&M UNIVERSITY 1028**  
ALL OPTICAL MICRO MOTORS BASED ON MOVING GRATING IN PHOTO SENSITIVE MEDIA  
09/30/1999 - 09/30/2001 FY00: \$0 Total: \$93,564  
Prin. Invest.: D CURLEY  
Tech. Officer: GRC/G ADAMOVSKY  
CASE Category: 13 - PHYSICS

**NCC 8 140 ALABAMA A&M UNIVERSITY 1029**  
R/S "CENTER FOR HYDROLOGY, SOIL CLIMATOLOGY AND REMOTE SENSING (HSCARS)"  
07/21/1997 - 09/30/2000 FY00: \$467,393 Total: \$3,412,362  
Prin. Invest.: T L COLEMAN  
Tech. Officer: MSFC/R ARNOLD  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCCW 84 ALABAMA A&M UNIVERSITY 1030**  
CENTER FOR HYDROLOGY, SOIL CLIMATOLOGY AND REMOTE SENSING  
08/09/1995 - 06/30/2000 FY00: \$0 Total: \$2,684,100  
Prin. Invest.: T L COLEMAN  
Tech. Officer: HQ/B L WHITE  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 8 52811 ALABAMA A&M UNIVERSITY 1031**  
RESEARCH PROGRAM  
09/25/1995 - 05/31/1999 FY00: -\$7,956 Total: \$74,544  
Prin. Invest.: P B LAI  
Tech. Officer: MSFC/D FRAZIER  
CASE Category: 13 - PHYSICS

## NASA'S UNIVERSITY PROGRAM

## ALABAMA

**NGT 8 52818** **ALABAMA A&M UNIVERSITY** **1032**  
 GRAD STUDENT RESEARCHER'S PROGRAM  
 07/24/1996 - 06/30/1999 FY00: -\$13,488 Total: \$48,846  
 Prin. Invest.: D P PARKER  
 Tech. Officer: MSFC/J BILBRO  
 CASE Category: 21 - MATHEMATICS

**NAG 3 1882** **AUBURN UNIVERSITY** **1033**  
 INVESTIGATION OF THERMAL STRESS CONVECTION IN MON ISOTHERMAL  
 GASES UNDER MICROGRAVITY CONDITIONS  
 05/21/1996 - 05/31/1999 FY00: -\$1 Total: \$93,409  
 Prin. Invest.: D W MACKOWSKI  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2120** **AUBURN UNIVERSITY** **1034**  
 TIAL JOINING SCIENCE AND TECHNOLOGY FOR ADVANCED AEROPRO-  
 PULSION SYSTEM  
 02/11/1998 - 01/13/2001 FY00: \$80,553 Total: \$238,491  
 Prin. Invest.: W F GALE, J W FERGUS, NONE  
 Tech. Officer: GRC/R D NOEBE, GRC/M V NATHAL  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2142** **AUBURN UNIVERSITY** **1035**  
 HIGH PERFORMANCE NICKEL HYDROXIDE ELECTRODES UTILIZING  
 COMPOSITE NICKEL FIBER ELECTRODE MICRO-STRUCTURE  
 04/02/1998 - 11/30/1999 FY00: -\$10 Total: \$77,490  
 Prin. Invest.: B K TATARCHUK  
 Tech. Officer: GRC/D BRITTON  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 5 8081** **AUBURN UNIVERSITY** **1036**  
 MAGNETIC RECONNECTION AND PARTICLE PRECIPITATION ACROSS THE  
 MAGNETOPAUSE  
 01/21/1999 - 02/28/2001 FY00: \$54,361 Total: \$109,321  
 Prin. Invest.: D LIN  
 Tech. Officer: GSFC/D EVANS/5  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1617** **AUBURN UNIVERSITY** **1037**  
 A SYSTEM STUDY FOR POWER WITHOUT WIRES UNDER NRA8- 23, SPACE  
 SOLAR POWER  
 07/06/1999 - 03/31/2000 FY00: \$0 Total: \$286,039  
 Prin. Invest.: H BRANDHORST, JR.  
 Tech. Officer: MSFC/J HOWELL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1628** **AUBURN UNIVERSITY** **1038**  
 ADVANCED IMAGE RECOGNITION FOR CONTROL OF SPACE DOCKING  
 09/08/1999 - 12/07/1999 FY00: -\$6,246 Total: \$18,671  
 Prin. Invest.: T ROPPEL  
 Tech. Officer: MSFC/R DABNEY  
 CASE Category: 21 - MATHEMATICS

**NAG 8 1717** **AUBURN UNIVERSITY** **1039**  
 HIGH POWER ELECTRIC PROPULSION RESEARCH  
 04/25/2000 - 11/30/2000 FY00: \$59,679 Total: \$59,679  
 Prin. Invest.: I HRBUD  
 Tech. Officer: MSFC/C SHAFER  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 8 1728** **AUBURN UNIVERSITY** **1040**  
 "GROUND SYSTEM-RECEIVER-SATELLITE INTERFACE ISSUES FOR  
 SPACE SOLAR POWER SYSTEMS"  
 06/09/2000 - 10/31/2000 FY00: \$54,474 Total: \$54,474  
 Prin. Invest.: S A MERRYMAN  
 Tech. Officer: MSFC/J HOWELL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAS 3 99200** **AUBURN UNIVERSITY** **1041**  
 EFFECTS OF HYPERVELOCITY IMPACTS ON HIGH VOLTAGE SOLAR  
 ARRAYS  
 09/17/1999 - 10/31/2000 FY00: \$25,994 Total: \$124,781  
 Prin. Invest.: H W BRANDHORST  
 Tech. Officer: GRC/P J GEORGE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 8 98249** **AUBURN UNIVERSITY** **1042**  
 DEVELOPMENT AND PACKAGING OF SUPERCAPACITORS FOR LAUNCH  
 VEHICLE APPLICATIONS  
 09/10/1998 - 11/30/2000 FY00: \$0 Total: \$523,572  
 Prin. Invest.: S A MERRYMAN, Z CHEN, NONE  
 Tech. Officer: MSFC/D K HALL, MSFC/T M EDGE  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 3 511** **AUBURN UNIVERSITY** **1043**  
 CENTER FOR THE COMMERCIAL DEVELOPMENT OF SPACE: SPACE  
 POWER & ADVANCED ELECTRONICS  
 11/01/1996 - 10/31/2001 FY00: \$212,000 Total: \$3,495,000  
 Prin. Invest.: D W BRANDHORST, JR., M F ROSE  
 Tech. Officer: GRC/J E DUDENHOEFER, GRC/R J SOVIE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 333** **AUBURN UNIVERSITY** **1044**  
 SOIL ORGANIC MATTER FLUXES IN AMAZONIAN FORESTS: NATURAL VS  
 INTENSIVELY MANAGED SYSTEMS  
 06/17/1998 - 01/28/2001 FY00: \$71,426 Total: \$174,044  
 Prin. Invest.: K MCNABB  
 Tech. Officer: GSFC/D DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 459** **AUBURN UNIVERSITY** **1045**  
 CENTER FOR SPACE POWER AND ADVANCED ELECTRONICS  
 03/01/2000 - 02/28/2001 FY00: \$1,030,000 Total: \$1,030,000  
 Prin. Invest.: H W BRANDHORST  
 Tech. Officer: GSFC/D BRUNNER  
 CASE Category: 11 - ASTRONOMY

**NCC 8 128** **AUBURN UNIVERSITY** **1046**  
 FOR RESEARCH: "AUBURN COMMERCIAL SPACE CENTER FOR THE SOLID-  
 IFICATION DESIGN/CASTNET PROGRAM"  
 01/28/1997 - 10/31/2000 FY00: \$3,175,924 Total: \$5,922,924  
 Prin. Invest.: R A OVERFELT  
 Tech. Officer: MSFC/W E POWELL  
 CASE Category: 47 - METAL & MATERIALS ENGR

## ALABAMA

## NASA'S UNIVERSITY PROGRAM

**NCC 8 151 AUBURN UNIVERSITY 1047**  
 GLOBAL CHANGE R/S EDUCATION & OUTREACH RELATED TO THE EARTH'S  
 SURFACE RESOURCES AND HYDROLOGIC CYCLE  
 06/30/1998 - 03/31/2003 FY00: \$234,369 Total: \$403,185  
*Prin. Invest.:* U HATCH  
*Tech. Officer:* MSFC/J R ARNOLD  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 1 52205 AUBURN UNIVERSITY 1048**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/04/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* M L WALLER, T H SHUMPERT, S M RAO  
*Tech. Officer:* LARC/F B BECK, LARC/M C BAILEY  
*CASE Category:* 45 - ELECTRICAL ENGR

**NGT 8 52851 AUBURN UNIVERSITY 1049**  
 ADVANCED METHOD FOR VIBRATION ANALYSIS OF HIGH SPEED ROTOR  
 SYSTEMS  
 07/21/1998 - 08/14/2001 FY00: \$16,500 Total: \$60,500  
*Prin. Invest.:* G T FLOWERS  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 8 52870 AUBURN UNIVERSITY 1050**  
 OPTIMAL APPLICATION OF COMBUSTION TEST DATA TO FLAMABILITY  
 ASSESSMENT IN GASEOUS OXYGEN  
 07/27/1998 - 08/14/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* P D JONES  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 8 1280 BIRMINGHAM SOUTHERN COLLEGE 1051**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY00: \$0 Total: \$25,000  
*Prin. Invest.:* K B BACHMANN  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
*CASE Category:* 13 - PHYSICS

**NCC 8 118 JOHN C. CALHOUN STATE COMMUNITY COLLEGE 1052**  
 RESEARCH "WORK EXPERIENCE MENTORING PROGRAM"  
 09/30/1996 - 09/30/1998 FY00: -\$11,545 Total: \$13,455  
*Prin. Invest.:* R CARPENTER  
*Tech. Officer:* MSFC/S PAYNE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1238 MILES COLLEGE 1053**  
 JOINT VENTURE IN SPACE SERVICE (JOVE)  
 10/31/1996 - 05/31/1999 FY00: \$0 Total: \$38,000  
*Prin. Invest.:* D B BHARWANI  
*Tech. Officer:* MSFC/E COTHRAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1600 OAKWOOD COLLEGE 1054**  
 R/S THE DEVELOPMENT, ASSESSMENT, VALIDATION AND ENHANCEMENT  
 (DAVE) OF VIRTUAL REALITY FOR HUMAN...  
 01/22/1999 - 01/20/2000 FY00: \$0 Total: \$93,168  
*Prin. Invest.:* K BENN-MARSHALL  
*Tech. Officer:* MSFC/G HAMILTON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1653 OAKWOOD COLLEGE 1055**  
 MINORITY STUDENT DEVELOPMENT PROGRAM IN SCIENCE & ENGI-  
 NEERING  
 02/03/2000 - 02/04/2003 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* E GWEBU  
*Tech. Officer:* MSFC/W LOVE/A C BEAM  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 8 1734 OAKWOOD COLLEGE 1056**  
 DEVELOPMENT OF ULTRA-LIGHT NORMAL INCIDENCE MIRROR ELEC-  
 TORCHEMICAL ASPECTS  
 08/18/2000 - 08/17/2003 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* A VOLKOV  
*Tech. Officer:* MSFC/W BRANTLEY  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 4588 STILLMAN COLLEGE 1057**  
 PRECOLLEGE AWARDS FOR EXCELLENCE IN MATHEMATICS, S AND  
 TECHNOLOGY  
 07/10/1997 - 03/31/2000 FY00: \$0 Total: \$98,766  
*Prin. Invest.:* J CHRISTIAN  
*Tech. Officer:* GSFC/M STOUTSENBERGHER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4578 TRENHOLM STATE TECHNICAL COLLEGE 1058**  
 HIGH SCHOOL STUDENT SCIENCE ENRICHMENT PROGRAM  
 05/13/1997 - 12/31/1999 FY00: \$0 Total: \$375,827  
*Prin. Invest.:* E ROSS  
*Tech. Officer:* GSFC/L RANDOLPH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1610 TRENHOLM STATE TECHNICAL COLLEGE 1059**  
 NASA HIGH SCHOOL SCIENCE ENRICHMENT PROGRAM (HSSEP)  
 06/07/1999 - 06/06/2002 FY00: \$100,000 Total: \$200,000  
*Prin. Invest.:* C THOMPSON  
*Tech. Officer:* MSFC/W LOVE, MSFC/A C BEAM  
*CASE Category:* 21 - MATHEMATICS

**NAG 8 1204 TROY STATE UNIVERSITY 1060**  
 JOVE  
 09/22/1995 - 08/31/1999 FY00: -\$11,389 Total: \$75,611  
*Prin. Invest.:* D J BATEMAN, D  
*Tech. Officer:* MSFC/D SIX  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 1865 TUSKEGEE UNIVERSITY 1061**  
 IDENTIFICATION OF SURFACE AND NEAR SURFACE DEFECTS AND  
 DAMAGE EVALUATION BY LASER SPECKLE  
 09/10/1996 - 09/09/2000 FY00: \$0 Total: \$292,635  
*Prin. Invest.:* J N BHUYAN  
*Tech. Officer:* LARC/R ROGOSKI  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 3 1977 TUSKEGEE UNIVERSITY 1062**  
 CHARACTERIZATION OF FLOW BEHIND THE FAN OF A TURBO FAN ENGINE  
 10/30/1996 - 10/28/1999 FY00: -\$1,451 Total: \$169,632  
*Prin. Invest.:* D SREE  
*Tech. Officer:* GRC/G G PODBOY  
*CASE Category:* 41 - AERONAUTICAL ENGR



## NASA'S UNIVERSITY PROGRAM

ALABAMA

<b>NAG 3 2037</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1063</b>	<b>NAG 8 1246</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1071</b>
SPUTTERING EROSION IN THE ION THRUSTER			R/S ATOMIZATION IN IMPINGING-JET INJECTORS OF LIQUID-PROPELLANT		
04/22/1997 - 11/30/1999	FY00: -\$1,483	Total: \$88,418	ROCKET ENGINES		
Prin. Invest.: P K RAY			10/31/1996 - 11/01/1999 FY00: \$0 Total: \$252,147		
Tech. Officer: GRC/M MANTENEIKS			Prin. Invest.: D A IBRAHIM		
CASE Category: 13 - PHYSICS			Tech. Officer: MSFC/H TRINH		
			CASE Category: 46 - MECHANICAL ENGR		
<b>NAG 3 2127</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1064</b>	<b>NAG 9 1094</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1072</b>
STUDY OF ELECTRICAL CONTACTS AND DEVICES IN ADVANC ED SEMI-CONDUCTORS			1999 NASA TUSKEGEE UNIV INTERSHIP PROGRAM		
02/13/1998 - 01/19/2001	FY00: \$99,862	Total: \$299,637	05/14/1999 - 12/30/1999 FY00: \$0 Total: \$25,000		
Prin. Invest.: K K DAS			Prin. Invest.: C K BONSI		
Tech. Officer: GRC/S A ALTEROVITZ			Tech. Officer: JSC/M DONALD		
CASE Category: 45 - ELECTRICAL ENGR			CASE Category: 54 - ENVIRONMENTAL BIOLOGY		
<b>NAG 3 2347</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1065</b>	<b>NAG10 168</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1073</b>
SPUTTERING EROSION IN THE ION THRUSTER SPUTTERING EROSION IN THE ION THRUSTER			FRACTURE MORPHOLOGY OF SELECTIVE POLYMER SYSTEMS UNDER MONOTONIC & FATIGUE LOADING		
03/09/2000 - 12/02/2000	FY00: \$25,000	Total: \$25,000	06/05/1995 - 12/31/1999 FY00: \$0 Total: \$285,284		
Prin. Invest.: D K RAY, NONE			Prin. Invest.: H A AGLAN		
Tech. Officer: GRC/M A MANTENEIKS			Tech. Officer: KSC/P FAUGHNAN		
CASE Category: 13 - PHYSICS			CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 3 2432</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1066</b>	<b>NAG10 209</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1074</b>
POLYIMIDE BASED NANOCOMPOSITES FOR AFFORDABLE SPACE TRANS-PORT			SWEETPOTATO STEM CUTTING DATABASE IN PREPARATION FOR FLIGHT		
06/23/2000 - 04/16/2003	FY00: \$100,000	Total: \$100,000	09/01/1997 - 02/28/2001 FY00: \$0 Total: \$295,346		
Prin. Invest.: D DEAN			Prin. Invest.: D MARTLEY		
Tech. Officer: GRC/S CAMPBELL			Tech. Officer: KSC/R WHEELER		
CASE Category: 49 - ENGINEERING, OTHER			CASE Category: 59 - LIFE SCIENCE, OTHER		
<b>NAG 4 133</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1067</b>	<b>NAG10 253</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1075</b>
TEAM TRAINING AND RETENTION OF SKILLS ACQUIRED IN ABOVE REAL TIME TRAINING ON A FLIGHT SIMULATOR			EVALUATION OF FIRE EXTINGUISHING HALON COMPOUNDS		
06/25/1997 - 10/30/1999	FY00: -\$2,021	Total: \$93,394	02/01/1999 - 12/31/2000 FY00: \$100,000 Total: \$197,620		
Prin. Invest.: S F ALI			Prin. Invest.: N VAHDAT		
Tech. Officer: DFRC/K NORLIN			Tech. Officer: KSC/M COLLINS		
CASE Category: 42 - ASTRONAUTICAL ENGR			CASE Category: 43 - CHEMICAL ENGR		
<b>NAG 4 169</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1068</b>	<b>NAG10 256</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1076</b>
EFFECTS OF ABOVE REAL TIME TRAINING			TUSKEGEE UNIV GATEWAY ACHIEVEMENT PROGRAM		
05/17/1999 - 09/30/2000	FY00: \$0	Total: \$68,711	03/01/1999 - 03/01/2001 FY00: \$85,653 Total: \$171,306		
Prin. Invest.: S FIRASAT ALI			Prin. Invest.: C DAVIS		
Tech. Officer: DFRC/K A NORLIN, DFRC/R BINKLEY			Tech. Officer: KSC/R MCKINNEY		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 99 - MULTI INTERDISCIPL, OTHER		
<b>NAG 4 201</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1069</b>	<b>NAG10 270</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1077</b>
DURABILITY ASSESSMENT OF AIRFRAME COMPOSITE REPAIR PATCHES			STARSAT 12000 TESTING TACTICS AND STRATEGIES PILOT PROGRAM		
02/15/2000 - 09/30/2002	FY00: \$60,000	Total: \$60,000	09/28/1999 - 09/30/2000 FY00: \$0 Total: \$98,323		
Prin. Invest.: H A AGLAN			Prin. Invest.: D K BLACKWELL		
Tech. Officer: DFRC/M W KEHOE			Tech. Officer: KSC/R J MCKINNEY		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 79 - SOCIAL SCIENCE, OTHER		
<b>NAG 4 203</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1070</b>	<b>NAG10 281</b>	<b>TUSKEGEE UNIVERSITY</b>	<b>1078</b>
EFFECTS OF SELF-INSTRUCTIONAL METHODS AND ABOVE REAL TIME TRAINING (ARTT) FOR MANEUVERING TASKS ON			NASA SPACEFLIGHT AND LIFE SCIENCES TRAINING PROGRA M		
03/03/2000 - 02/28/2001	FY00: \$52,447	Total: \$52,447	04/25/2000 - 03/07/2001 FY00: \$303,416 Total: \$303,416		
Prin. Invest.: D ALI			Prin. Invest.: D HILL		
Tech. Officer: DFRC/K NORLIN			Tech. Officer: KSC/S POTTER		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 59 - LIFE SCIENCE, OTHER		

**NAG13 50 TUSKEGEE UNIVERSITY 1079**  
 NASA UNIVERSITY PARTNERSHIP AWARD WITH MINORITY INSTITUTIONS PROGRAM  
 06/19/1997 - 06/30/2000 FY00: \$0 Total: \$367,564  
*Prin. Invest.:* E SHEPPARD  
*Tech. Officer:* SSC/B ST. CYR  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 3 591 TUSKEGEE UNIVERSITY 1080**  
 HIGH TEMPERATURE FATIGUE AND CREEP BEHAVIOR OF CERA MIC MATRIX COMPOSITES FOR EXHAUST NOZZLE APPLICATION  
 03/11/1998 - 12/23/2000 FY00: \$122,571 Total: \$362,435  
*Prin. Invest.:* A HAQUE, H MAHFUZ, U VAIDA  
*Tech. Officer:* GRC/M J VERILLE, GRC/J E GRADY  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NCC 3 726 TUSKEGEE UNIVERSITY 1081**  
 STUDY OF DESIGN PRINCIPLES AND SPARE PLASMA INTERACTION ON MODULAR HIGH VOLTAGE POWER DISTRIBUTION  
 08/05/1999 - 07/31/2000 FY00: -\$76,000 Total: \$2,875  
*Prin. Invest.:* C V DORESWAMY  
*Tech. Officer:* GRC/D C FERGUSON  
*CASE Category:* 45 - ELECTRICAL ENGR

**NCC 5 346 TUSKEGEE UNIVERSITY 1082**  
 CENTER FOR LIDAR AND ATMOSPHERIC SCIENCES STUDENTS  
 07/01/1998 - 07/31/2003 FY00: \$499,900 Total: \$1,488,578  
*Prin. Invest.:* N O EGIEBOR  
*Tech. Officer:* HQ/B WHITE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 9 51 TUSKEGEE UNIVERSITY 1083**  
 CENTER FOR FOOD & ENVIRONMENTAL SYSTEMS ... (CFESH)  
 07/23/1997 - 12/31/2001 FY00: \$1,000,000 Total: \$4,000,000  
*Prin. Invest.:* W A HILL  
*Tech. Officer:* JSC/D BARTA  
*CASE Category:* 62 - PSYCHOLOGY SOCIAL ASPECTS

**NGT 9 37 TUSKEGEE UNIVERSITY 1084**  
 REFINEMENT OF HYDROPONIC GROWING SYSTEMS  
 08/17/1998 - 05/24/1999 FY00: -\$1,991 Total: \$22,745  
*Prin. Invest.:* C BONSI, J H HILL  
*Tech. Officer:* JSC/L M ARMENDARIZ  
*CASE Category:* 55 - AGRICULTURE

**NAG 2 1348 UNIVERSITY OF ALABAMA - BIRMINGHAM 1085**  
 MOLECULAR BASIS OF MECHANOSIGNAL TRANSDUCTION IN VASCULAR ENDOTHELIAL CELLS  
 07/23/1999 - 07/31/2000 FY00: \$145,852 Total: \$250,032  
*Prin. Invest.:* V D DARLEY-USMAR  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4550 UNIVERSITY OF ALABAMA - BIRMINGHAM 1086**  
 A LASER RAMAN SPECTROMETER SYSTEM SUITABLE FOR IN-SPACE CRAFT  
 05/08/1997 - 04/30/2000 FY00: \$0 Total: \$197,215  
*Prin. Invest.:* D J WDOWIAK  
*Tech. Officer:* GSFC/B CAMPBELL  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4584 UNIVERSITY OF ALABAMA - BIRMINGHAM 1087**  
 MOSSBAUER SPECTROSCOPY AS A TOOL FOR MARTIAN EXOPROSPECTING  
 05/20/1997 - 01/31/2000 FY00: \$0 Total: \$80,000  
*Prin. Invest.:* D J WDOWIAK  
*Tech. Officer:* GSFC/B CAMPBELL  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4853 UNIVERSITY OF ALABAMA - BIRMINGHAM 1088**  
 FORMATION OF THE HYDROCARBONS OF CARBONACEOUS CHON  
 07/23/1997 - 03/31/2001 FY00: \$27,000 Total: \$130,412  
*Prin. Invest.:* D WDOWIAK  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6815 UNIVERSITY OF ALABAMA - BIRMINGHAM 1089**  
 INVESTIGATION OF THE CONTRIBUTION OF POLYCYCLIC AROMATIC HYDROCARBONS TO INTERSTELLAR ULTRAVIOLET EMISSION  
 01/05/1998 - 12/31/2000 FY00: \$24,492 Total: \$76,492  
*Prin. Invest.:* T WDOWIAK  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6973 UNIVERSITY OF ALABAMA - BIRMINGHAM 1090**  
 FORMATION OF THE HYDROCARBONS OF CARBONACEOUS CHON DROPLETS  
 03/13/1998 - 02/28/2001 FY00: \$0 Total: \$0  
*Prin. Invest.:* T J WDOWIAK  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7079 UNIVERSITY OF ALABAMA - BIRMINGHAM 1091**  
 REPEATING IMPACT TOOL FOR IN-SITU GEOLOGY INVESTIGATIONS  
 03/06/1998 - 03/31/2001 FY00: \$0 Total: \$109,902  
*Prin. Invest.:* T J WDOWIAK  
*Tech. Officer:* GSFC/B CAMPBELL  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8786 UNIVERSITY OF ALABAMA - BIRMINGHAM 1092**  
 DEVELOPMENT OF HIGH AFFINITY SENSORS FOR BIOLOGICAL PATHOGENS  
 09/02/1999 - 08/31/2001 FY00: \$0 Total: \$800,000  
*Prin. Invest.:* L DELUCAS  
*Tech. Officer:* GSFC/E PAYLOR  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8819 UNIVERSITY OF ALABAMA - BIRMINGHAM 1093**  
 THE IR-EMITTING AROMATIC COMPONENT OF THE INTERSTELLAR AND CIRCUMSTELLAR MEDIUMS  
 09/07/1999 - 07/31/2001 FY00: \$37,296 Total: \$75,860  
*Prin. Invest.:* T WDOWIAK  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9424 UNIVERSITY OF ALABAMA - BIRMINGHAM 1094**  
 TOF MS IN SITU PLANETARY SCIENCE AND EXOBIOLOGY ON EUROPA  
 04/17/2000 - 04/29/2001 FY00: \$128,501 Total: \$128,501  
*Prin. Invest.:* T WDOWIAK  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

## NASA'S UNIVERSITY PROGRAM

## ALABAMA

**NAG 8 1146 UNIVERSITY OF ALABAMA - BIRMINGHAM 1095**  
 RESEARCH ON DEVELOPMENT OF ROBOTIC TECHNIQUES  
 09/13/1995 - 09/12/1999 FY00: \$0 Total: \$834,290  
 Prin. Invest.: L J DELUCAS  
 Tech. Officer: GSFC/B GUYNES  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 8 1162 UNIVERSITY OF ALABAMA - BIRMINGHAM 1096**  
 INVESTIGATION OF MACROMOLECULAR TRANSPORT  
 09/01/1995 - 08/31/1999 FY00: \$0 Total: \$525,014  
 Prin. Invest.: L J DELUCAS  
 Tech. Officer: MSFC/B GUYNES, MSFC/D C CARTER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1228 UNIVERSITY OF ALABAMA - BIRMINGHAM 1097**  
 THE EFFECT OF CONVECTION ON MORPHOLOGICAL STABILITY  
 05/01/1996 - 04/27/2001 FY00: \$128,334 Total: \$420,000  
 Prin. Invest.: J B ANDREWS  
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1678 UNIVERSITY OF ALABAMA - BIRMINGHAM 1098**  
 RESEARCH "CONTROLLED SYNTHESIS OF NANOPARTICLES USING BLOCK  
 COPOLYMERS: NANOREACTORS IN MICROGRAVITY  
 04/11/2000 - 03/10/2010 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: J W MAYES  
 Tech. Officer: MSFC/P M DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 8 40189 UNIVERSITY OF ALABAMA - BIRMINGHAM 1099**  
 PROTEIN CRYSTAL GROWTH IN MICROGRAVITY  
 04/01/1994 - 12/31/2003 FY00: \$3,414,016 Total: \$19,607,941  
 Prin. Invest.: L J DELUCAS  
 Tech. Officer: MSFC/D K COLLINS  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAS 8 99059 UNIVERSITY OF ALABAMA - BIRMINGHAM 1100**  
 R/S COUPLED GROWTH IN HYPERMONOTECTICS  
 01/22/1999 - 03/31/2003 FY00: \$385,000 Total: \$699,366  
 Prin. Invest.: J B ANDREWS  
 Tech. Officer: MSFC/R KING  
 CASE Category: 13 - PHYSICS

**NCC 8 126 UNIVERSITY OF ALABAMA - BIRMINGHAM 1101**  
 FOR RES: "CONTINUATION OF SUPPORT FOR COMMERCIAL SPACE CTR,  
 CTR FOR MACROMOLECULAR CRYSTALLOGRAPHY"  
 01/27/1997 - 10/31/2005 FY00: \$8,593,885 Total: \$29,485,043  
 Prin. Invest.: L J DELUCAS  
 Tech. Officer: MSFC/R S LIDE, MSFC/S LAMBIH  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 8 172 UNIVERSITY OF ALABAMA - BIRMINGHAM 1102**  
 "MICROGRAVITY CRYSTAL GROWTH STUDIES OF MEDICALLY RELEVANT  
 MACROMOLECULES"  
 02/11/1999 - 09/30/2002 FY00: \$375,000 Total: \$509,427  
 Prin. Invest.: L J DELUCAS  
 Tech. Officer: MSFC/T OWEN  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 8 204 UNIVERSITY OF ALABAMA - BIRMINGHAM 1103**  
 STRUCTURAL FLUCTUATIONS & THERMOPHYSICAL PROPERTIES OF  
 MOLTEN II - IV COMPOUNDS  
 07/14/2000 - 11/30/2003 FY00: \$20,001 Total: \$20,001  
 Prin. Invest.: R SCRIPA  
 Tech. Officer: MSFC/C HUA SU  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NGT 8 52845 UNIVERSITY OF ALABAMA - BIRMINGHAM 1104**  
 GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP  
 09/12/1997 - 09/14/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: C M LAWSON  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 13 - PHYSICS

**NAG 1 1842 UNIVERSITY OF ALABAMA - HUNTSVILLE 1105**  
 REDUCING THE STATION-TO-STATION VARIABILITY OF UMKEHR OZONE  
 TRENDS USING SAGE MEASUREMENTS  
 06/20/1996 - 06/30/2000 FY00: \$1 Total: \$238,929  
 Prin. Invest.: M J NEWCHURCH Prin. Invest.: NONE  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1898 UNIVERSITY OF ALABAMA - HUNTSVILLE 1106**  
 EVALUATING THE INFORMATION CONTENT OF NEWLY RETRIEVED SAGE II  
 NO2 MEASUREMENTS IN THE LOWER  
 02/05/1997 - 02/04/2000 FY00: -\$53 Total: \$189,454  
 Prin. Invest.: M J NEWCHURCH  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1955 UNIVERSITY OF ALABAMA - HUNTSVILLE 1107**  
 CLOUDS AND THE EARTH'S RADIANT ENERGY SYSTEM SCIENTIFIC IN-  
 VESTIGATION  
 08/25/1997 - 10/31/1998 FY00: -\$3,132 Total: \$344,677  
 Prin. Invest.: R WELCH  
 Tech. Officer: LARC/B A WIELICKI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2026 UNIVERSITY OF ALABAMA - HUNTSVILLE 1108**  
 AEROSOL RETRIEVALS FROM HIGH RESOLUTION BROADBAND ATMOS  
 SOLAR OCCULTATION SPECTRA  
 03/19/1998 - 12/31/2000 FY00: \$69,000 Total: \$201,000  
 Prin. Invest.: M J NEWCHURCH  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2204 UNIVERSITY OF ALABAMA - HUNTSVILLE 1109**  
 OZONE TRENDS IN SAGE, HALOE, TOMS, UMKEHR, AND LIDAR  
 MEASUREMENTS (NRA-98-OES-04)  
 06/11/1999 - 06/30/2002 FY00: \$80,000 Total: \$165,000  
 Prin. Invest.: M J NEWCHURCH  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 985 UNIVERSITY OF ALABAMA - HUNTSVILLE 1110**  
 MECHANISMS OF GRAVITY SENSING AND RESPONSE IN HEMA TOPOIETIC  
 CELLS  
 06/21/1995 - 12/31/1999 FY00: \$0 Total: \$270,883  
 Prin. Invest.: M L LEWIS  
 Tech. Officer: ARC/C M WINGET, ARC/C G JAHNS  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NAG 2 6037 UNIVERSITY OF ALABAMA - HUNTSVILLE 1111**  
 WORKSHOP ON ISSUES IN THE APPLICATION OF DATA MINING TO SCIENTIFIC DATA  
 09/23/1999 - 12/31/1999 FY00: \$0 Total: \$6,000  
 Prin. Invest.: S J GRAVES  
 Tech. Officer: ARC/J P ZIEBARTH  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 3 2285 UNIVERSITY OF ALABAMA - HUNTSVILLE 1112**  
 STUDY OF THE STRUCTURE COMPOSITION AND ELECTRICAL PROPERTIES OF SILICON CARBIDE EPITAXIAL FILMS FOR  
 08/04/1999 - 06/30/2002 FY00: \$0 Total: \$30,909  
 Prin. Invest.: D A GEORGE  
 Tech. Officer: GRC/D J LARKIN  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 3027 UNIVERSITY OF ALABAMA - HUNTSVILLE 1113**  
 ON THE ORIGIN AND EVOLUTION ON STELLAR CHROMOSPHERES, CORONAE AND WINDS  
 10/02/1995 - 05/31/1999 FY00: \$0 Total: \$310,064  
 Prin. Invest.: Z E MUSIELAK  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3164 UNIVERSITY OF ALABAMA - HUNTSVILLE 1114**  
 THE DIFFUSE EUV AND X-RAY BACKGROUND AS A PROBE OF THE INTERSTELLAR MEDIUM  
 02/02/1996 - 02/14/1999 FY00: -\$55 Total: \$78,145  
 Prin. Invest.: R LIEU  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3551 UNIVERSITY OF ALABAMA - HUNTSVILLE 1115**  
 THE ROLE OF TURBULENCE IN HELIOSPHERIC PLASMAS  
 12/09/1996 - 05/31/1999 FY00: -\$8,172 Total: \$65,828  
 Prin. Invest.: J A MILLER  
 Tech. Officer: GSFC/M L GOLDETEIN  
 CASE Category: 13 - PHYSICS

**NAG 5 3674 UNIVERSITY OF ALABAMA - HUNTSVILLE 1116**  
 STUDY OF THE TEMPORAL AND SPECTRAL VARIABILITY OF WITH BATSE  
 01/02/1997 - 01/14/2000 FY00: \$0 Total: \$133,500  
 Prin. Invest.: W PACIECAS  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3675 UNIVERSITY OF ALABAMA - HUNTSVILLE 1117**  
 A STUDY OF TERRESTRIAL GAMMA-RAY FLASHES OBSERVED  
 01/02/1997 - 01/14/2000 FY00: \$0 Total: \$34,001  
 Prin. Invest.: R MALLOZZI  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3805 UNIVERSITY OF ALABAMA - HUNTSVILLE 1118**  
 LONG TERM MONITORING OF THE X-RAY PULSAR 4U1538-52 LONG TERM MONITORING AND THE SPECTRUM OF AQUILA X  
 12/12/1996 - 12/14/1999 FY00: \$0 Total: \$66,044  
 Prin. Invest.: W PACIEBAB  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4003 UNIVERSITY OF ALABAMA - HUNTSVILLE 1119**  
 AUTOMATED IDENTIFICATION OF MORPHOLOGICAL SIGNATURE IMAGES  
 03/06/1997 - 08/31/2000 FY00: \$0 Total: \$327,000  
 Prin. Invest.: D G RICHARDS  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 4027 UNIVERSITY OF ALABAMA - HUNTSVILLE 1120**  
 DIAGNOSTICS OF MASS MOTIONS IN SOLAR FLARES  
 03/26/1997 - 03/31/2000 FY00: \$0 Total: \$208,000  
 Prin. Invest.: D EMSLIE  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 4111 UNIVERSITY OF ALABAMA - HUNTSVILLE 1121**  
 FAST SPECTROSCOPY OF Z SOURCES; OBSERVATIONS OF THE BURST  
 04/28/1997 - 04/14/2000 FY00: \$0 Total: \$26,000  
 Prin. Invest.: W PACIESAS  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4268 UNIVERSITY OF ALABAMA - HUNTSVILLE 1122**  
 THERMAL STRUCTURE AND COMPOSITION OF THE INNER MAG  
 03/25/1997 - 05/14/2001 FY00: \$35,472 Total: \$189,325  
 Prin. Invest.: D H COMFORT  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 4482 UNIVERSITY OF ALABAMA - HUNTSVILLE 1123**  
 LUMINOSITY DEPENDENCE OF THE X-RAY SPECTRA AND VARIATION OF SOURCES  
 05/15/1997 - 05/14/1999 FY00: \$0 Total: \$16,000  
 Prin. Invest.: J VANPARADIS  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4604 UNIVERSITY OF ALABAMA - HUNTSVILLE 1124**  
 THREE-DIMENSIONAL NUMERICAL SIMULATION OF NONLINEAR IN THE AURORAL IONOSPHERE  
 05/13/1997 - 01/31/2000 FY00: \$0 Total: \$115,957  
 Prin. Invest.: D SINGH  
 Tech. Officer: GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 4608 UNIVERSITY OF ALABAMA - HUNTSVILLE 1125**  
 ION ACCELERATION AND ABUNDANCE ENHANCEMENTS IN IMP  
 05/20/1997 - 03/31/2001 FY00: \$0 Total: \$105,000  
 Prin. Invest.: P A MILLER  
 Tech. Officer: GSFC/J A LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4762 UNIVERSITY OF ALABAMA - HUNTSVILLE 1126**  
 DETERMINING GRAVITY WAVE ENERGISTICS FROM COINCIDENT GROUND-BASED OBSERVATIONS OF NIGHTGLOW EMISSIONS  
 06/05/1997 - 05/31/2000 FY00: \$0 Total: \$40,000  
 Prin. Invest.: D P HICKEY  
 Tech. Officer: GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 4893 UNIVERSITY OF ALABAMA - HUNTSVILLE 1127**  
 COUPLING OF MICRO-AND MESO-SCALE PROCESSES DURING IC REFL-  
 LING  
 06/20/1997 - 04/30/2000 FY00: \$0 Total: \$70,000  
 Prin. Invest.: N SINGH  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 4951 UNIVERSITY OF ALABAMA - HUNTSVILLE 1128**  
 ELECTRON ACCELERATION IN IMPULSIVE SOLAR FLARES  
 06/23/1997 - 02/29/2000 FY00: \$0 Total: \$168,000  
 Prin. Invest.: J A MILLER  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 5112 UNIVERSITY OF ALABAMA - HUNTSVILLE 1129**  
 DEVELOPMENT OF SIFTER WITH SIMULTANEOUS TRACKING AND  
 CALORIMETRY  
 02/12/1997 - 12/31/2000 FY00: \$0 Total: \$278,000  
 Prin. Invest.: G N PENDLETON  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5273 UNIVERSITY OF ALABAMA - HUNTSVILLE 1130**  
 PHASE 1 OF THOR PROJECT PHAS 1 OF THOR PROJECT  
 04/17/2000 - 04/13/2006 FY00: \$281,000 Total: \$281,000  
 Prin. Invest.: J DIMMOCK  
 Tech. Officer: GSFC/D L PIERCE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 5298 UNIVERSITY OF ALABAMA - HUNTSVILLE 1131**  
 SCINTILLATING FIBER TELESCOPE FOR ENERGETIC RADIATION,  
 GAMMA-RAY APPLICATIONS (SIFTER)  
 06/12/2000 - 06/07/2001 FY00: \$130,000 Total: \$130,000  
 Prin. Invest.: PENDLETON  
 Tech. Officer: WFF/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 6021 UNIVERSITY OF ALABAMA - HUNTSVILLE 1132**  
 ACCRETING BLACK HOLES - AN ALL OUT EFFORT  
 08/19/1997 - 08/14/2000 FY00: \$0 Total: \$207,336  
 Prin. Invest.: J PACIESAS  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6746 UNIVERSITY OF ALABAMA - HUNTSVILLE 1133**  
 IS THE NARROW E-PEAK DISTRIBUTION OF GAMMA-RAY BURSTS REAL?  
 01/12/1998 - 01/14/2000 FY00: \$0 Total: \$20,000  
 Prin. Invest.: J BRAINERD  
 Tech. Officer: GSFC/J NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6747 UNIVERSITY OF ALABAMA - HUNTSVILLE 1134**  
 HIGH-ENERGY SPECTRAL AND TEMPORAL CONSTRAINTS ON COSMO-  
 LOGICAL GAMMA-RAY BURSTS  
 01/12/1998 - 01/14/2000 FY00: \$0 Total: \$27,958  
 Prin. Invest.: R KIPPEN  
 Tech. Officer: GSFC/J NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6930 UNIVERSITY OF ALABAMA - HUNTSVILLE 1135**  
 IMPROVING THE LOCATION ACCURACY OF BACODINE  
 01/29/1998 - 01/31/2000 FY00: \$0 Total: \$49,984  
 Prin. Invest.: G N PENDLETON  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6986 UNIVERSITY OF ALABAMA - HUNTSVILLE 1136**  
 QUANTIFICATION OF CHANGES IN THEMOSPHERIC O/N2 FRO M OBSERVA-  
 TIONS OF UV AIRGLOW AND AURORA  
 02/10/1998 - 03/31/2001 FY00: \$75,900 Total: \$228,256  
 Prin. Invest.: G A GERMANY  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7005 UNIVERSITY OF ALABAMA - HUNTSVILLE 1137**  
 THE WARM PHASE OF THE INTRACUSTER MEDIUM  
 02/10/1998 - 02/14/2000 FY00: \$0 Total: \$30,000  
 Prin. Invest.: R LIEU  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7105 UNIVERSITY OF ALABAMA - HUNTSVILLE 1138**  
 XTE PROPOSAL - A SURVEY OF THE 30 DAY CYCLE IN LMC X-4; A STUDY  
 OF PULSES SHAPE EVOLUTION AND X-RAY R  
 03/13/1998 - 03/31/2000 FY00: \$0 Total: \$20,000  
 Prin. Invest.: W PACIESAS  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7269 UNIVERSITY OF ALABAMA - HUNTSVILLE 1139**  
 DERIVATION OF TROPOSPHERIC OZONE CLIMATOLOGY AND TRENDS  
 FROM TOMS DATA  
 05/07/1998 - 05/14/2001 FY00: \$117,225 Total: \$259,246  
 Prin. Invest.: M NEWCHURCH  
 Tech. Officer: GSFC/S CHANDRA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7270 UNIVERSITY OF ALABAMA - HUNTSVILLE 1140**  
 VALIDATION AND INTERCOMPARISON OF TOMS AEROSOL PRO DUCTS  
 USING SATELLITE AND GROUND BASED MEASUREMENTS  
 04/22/1998 - 12/31/2000 FY00: \$77,250 Total: \$204,500  
 Prin. Invest.: S A CHRISTOPHER  
 Tech. Officer: GSFC/J R HERMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7382 UNIVERSITY OF ALABAMA - HUNTSVILLE 1141**  
 XTE PROPOSAL - COMPREHENSIVE SURVEY OF ATOLL SOURCES  
 05/06/1998 - 06/30/1999 FY00: -\$214 Total: \$5,661  
 Prin. Invest.: J PARADIS  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7414 UNIVERSITY OF ALABAMA - HUNTSVILLE 1142**  
 XTE PROPOSAL (30079) - SIMULTANEOUS RXTE AND RADIO OBSERVA-  
 TIONS OF THE RAPID BURSTER IN OUTBURST  
 06/02/1998 - 06/30/2000 FY00: \$0 Total: \$5,000  
 Prin. Invest.: W S PACIESAS  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7415 UNIVERSITY OF ALABAMA - HUNTSVILLE 1143**  
 XTE PROPOSAL (30056) ASM-TRIGGERED TOO OBSERVATIONS OF KILOHERTZ OSCILLATIONS IN THREE ATOLL  
 06/02/1998 - 06/30/2000 FY00: \$0 Total: \$5,450  
*Prin. Invest.:* W S PACIESAS  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7483 UNIVERSITY OF ALABAMA - HUNTSVILLE 1144**  
 XTE PROPOSAL (30178) XTE TIMING AND SPECTROSCOPY OF F 1630-47 DURING A SECOND OUTBURST  
 06/01/1998 - 09/30/1999 FY00: -\$46 Total: \$6,246  
*Prin. Invest.:* S W DIETERS  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7494 UNIVERSITY OF ALABAMA - HUNTSVILLE 1145**  
 XTE PROPOSAL (30062) A VARYING KHZ PEAK SEPARATION IN 4U 1608-52?  
 06/29/1998 - 06/30/2000 FY00: \$0 Total: \$7,025  
*Prin. Invest.:* W S PACIESAS  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7542 UNIVERSITY OF ALABAMA - HUNTSVILLE 1146**  
 INFLUENCE OF ANTECEDENT LAND SURFACE HYDROLOGY ON MESOSCALE WATER AND ENERGY PROCESSES  
 06/18/1998 - 05/31/1999 FY00: -\$1,793 Total: \$6,207  
*Prin. Invest.:* R MCNIDER  
*Tech. Officer:* GSFC/M JASINSKI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7655 UNIVERSITY OF ALABAMA - HUNTSVILLE 1147**  
 REMOTE SENSING OF MAGNETOSPHERIC STRUCTURE USING (U,B,K) ANALYSIS OF ISTP PARTICLE AND FIELD DATA  
 09/15/1998 - 08/31/2000 FY00: \$0 Total: \$43,706  
*Prin. Invest.:* D SHELDON  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7665 UNIVERSITY OF ALABAMA - HUNTSVILLE 1148**  
 XTE PROPOSAL (30152) - HARD X-RAY LOW STATE OBSERVATIONS OF MICROQUASARS  
 09/09/1998 - 09/30/1999 FY00: -\$26 Total: \$7,660  
*Prin. Invest.:* S N ZHANG  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7772 UNIVERSITY OF ALABAMA - HUNTSVILLE 1149**  
 STUDY OF GAMMA-RAY BURST MONITOR FOR GLAST MISSION TO FURTHER DEFINE THE ENGINEERING CHARACTERISTIC  
 10/28/1998 - 06/30/2000 FY00: \$0 Total: \$20,000  
*Prin. Invest.:* D KIPPEN  
*Tech. Officer:* GSFC/M DIJOSEPH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 7785 UNIVERSITY OF ALABAMA - HUNTSVILLE 1150**  
 BATSE/SAX AND BATSE/RXTE-ASM JOINT SPECTRAL STUDY OF GRBS  
 11/09/1998 - 11/30/2000 FY00: \$0 Total: \$14,995  
*Prin. Invest.:* W S PACIESAS  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7786 UNIVERSITY OF ALABAMA - HUNTSVILLE 1151**  
 STUDY OF THE PROPERTIES OF GRO J1744-28 USING THE BATSE DATA BASE  
 11/09/1998 - 11/30/2000 FY00: \$0 Total: \$11,995  
*Prin. Invest.:* W S PACIESAS  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7808 UNIVERSITY OF ALABAMA - HUNTSVILLE 1152**  
 SEARCH FOR UNTRIGGERED EVENTS IN THE BATSE DATA BASE  
 11/10/1998 - 11/30/2000 FY00: \$0 Total: \$4,999  
*Prin. Invest.:* W S PACIESAS  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7809 UNIVERSITY OF ALABAMA - HUNTSVILLE 1153**  
 IMPROVED CHARACTERIZATION OF PAST AND FUTURE BATSE GAMMA-RAY BURST LOCATIONS  
 11/10/1998 - 11/30/2000 FY00: \$0 Total: \$9,999  
*Prin. Invest.:* R KIPPEN  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7811 UNIVERSITY OF ALABAMA - HUNTSVILLE 1154**  
 A NEW GRB DURATION MEASURE AND ITS APPLICATIONS TO COSMOLOGICAL INVARIANT PARAMETERS  
 11/12/1998 - 11/30/2000 FY00: \$0 Total: \$15,000  
*Prin. Invest.:* R PREECE  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7812 UNIVERSITY OF ALABAMA - HUNTSVILLE 1155**  
 DETERMINING THE GRB LOW-ENERGY CONTINUUM BEHAVIOR WITH BATSE  
 11/12/1998 - 11/30/1999 FY00: \$0 Total: \$9,999  
*Prin. Invest.:* R PREECE  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7823 UNIVERSITY OF ALABAMA - HUNTSVILLE 1156**  
 DISTINGUISHING GAMMA-RAY BURST MODELS BY COMPARING THEIR PREDICTIONS OF RAPID HIGH-ENERGY SPECTRAL  
 11/13/1998 - 11/30/1999 FY00: \$0 Total: \$9,998  
*Prin. Invest.:* G N PENDLETON  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7824 UNIVERSITY OF ALABAMA - HUNTSVILLE 1157**  
 LONG TERM MONITORING AND OSSE TOO OBSERVATIONS OF GX339-4  
 11/25/1998 - 11/30/1999 FY00: \$0 Total: \$20,000  
*Prin. Invest.:* S N ZHANG  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7844 UNIVERSITY OF ALABAMA - HUNTSVILLE 1158**  
 MODELING COUPLED KATABATIC/ICE/OCEAN PROCESSES RELATED TO THE ENERGY AND CARBON BUDGET IN THE HIGH L  
 11/18/1998 - 05/31/2000 FY00: \$0 Total: \$119,584  
*Prin. Invest.:* R T MCNIDER  
*Tech. Officer:* GSFC/S GOGINENI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7927 UNIVERSITY OF ALABAMA - HUNTSVILLE 1159**  
 RELATIVISTIC ASTROPHYSICS IN BLACK HOLE AND LOW-MA SS NEUTRON  
 STAR X-RAY BINARIES - LTSA98  
 01/12/1999 - 01/14/2001 FY00: \$32,193 Total: \$63,749  
 Prin. Invest.: S ZHANG  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7944 UNIVERSITY OF ALABAMA - HUNTSVILLE 1160**  
 ASCA PROPOSAL (41049) A NEW TRANSIENT WITH A RECUR RENT  
 OUTBURST PERIOD OF 241DAYS  
 02/05/1999 - 01/31/2000 FY00: \$0 Total: \$16,300  
 Prin. Invest.: S ZHANG  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7972 UNIVERSITY OF ALABAMA - HUNTSVILLE 1161**  
 TESTING THE PHYSICAL MECHANISMS OF GAMMA-RAY BURST S WITH-  
 MULTI-INSTRUMENT TIME-RESOL  
 12/22/1998 - 12/31/2000 FY00: \$88,960 Total: \$174,524  
 Prin. Invest.: M S BRIGGS  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7979 UNIVERSITY OF ALABAMA - HUNTSVILLE 1162**  
 A SURVEY OF RING CURRENT DIRECT INJECTION EVENTS  
 01/13/1999 - 01/14/2001 FY00: \$0 Total: \$40,037  
 Prin. Invest.: R SHELTON  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 7991 UNIVERSITY OF ALABAMA - HUNTSVILLE 1163**  
 AN EMPIRICAL MODEL OF CORONAL HEATING DEDUCED FROM SOHO  
 OBSERVATIONSOF TRANSITION REGION DYNAM  
 01/05/1999 - 01/31/2001 FY00: \$84,000 Total: \$166,538  
 Prin. Invest.: G EMSLIE  
 Tech. Officer: GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8009 UNIVERSITY OF ALABAMA - HUNTSVILLE 1164**  
 GEOMAGNETIC CUTOFF RIGIDITY COMPUTER PROGRAM  
 01/13/1999 - 12/31/2000 FY00: \$0 Total: \$10,000  
 Prin. Invest.: M SHEA  
 Tech. Officer: GSFC/J H BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8011 UNIVERSITY OF ALABAMA - HUNTSVILLE 1165**  
 GROUND-LEVEL SOLAR COSMIC RAY DATA FROM SOLAR CYCLE 19  
 01/13/1999 - 12/31/2000 FY00: \$28,000 Total: \$57,000  
 Prin. Invest.: M SHEA  
 Tech. Officer: GSFC/J H BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8034 UNIVERSITY OF ALABAMA - HUNTSVILLE 1166**  
 UAH ANALYSIS OF TIDE/PSI DATA FOR ISTEP SOLAR MAXIMUM EXTENDED  
 MISSION  
 01/19/1999 - 01/31/2001 FY00: \$92,000 Total: \$217,862  
 Prin. Invest.: H COMFORT  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8101 UNIVERSITY OF ALABAMA - HUNTSVILLE 1167**  
 XTE PROPOSAL (10093) - CORRELATED OBSERVATIONS OF THE X-RAY  
 BURSTER4U 1608-522  
 01/26/1999 - 01/31/2000 FY00: \$0 Total: \$10,000  
 Prin. Invest.: S ZHANG  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8102 UNIVERSITY OF ALABAMA - HUNTSVILLE 1168**  
 XTE PROPOSAL (10095) HARD X-RAY EMISSION OF X-RAY  
 BURSTERS(ZHANGIS CO-INVESTIGATOR F  
 01/27/1999 - 01/31/2000 FY00: -\$1 Total: \$5,699  
 Prin. Invest.: S ZHANG  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8125 UNIVERSITY OF ALABAMA - HUNTSVILLE 1169**  
 SNAPSHOTS OF NEW ASM/BATSE TRANSIENT SOURCES WITH RXTE  
 03/04/1999 - 02/14/2000 FY00: \$0 Total: \$7,714  
 Prin. Invest.: S ZHANG  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8200 UNIVERSITY OF ALABAMA - HUNTSVILLE 1170**  
 QUANTIFICATION OF THERMOSPHERIC AND IONOSPHERIC CHANGES  
 DURING MAGNETIC STORMS  
 02/04/1999 - 07/14/2000 FY00: \$0 Total: \$39,000  
 Prin. Invest.: D G RICHARDS  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8210 UNIVERSITY OF ALABAMA - HUNTSVILLE 1171**  
 TOWARDS AN UNDERSTANDING OF THE LUMINOUS SOFT EXCESS EMIS-  
 SION FROM CLUSTERS OF GALAXIES (ADP9  
 02/25/1999 - 02/28/2001 FY00: \$39,479 Total: \$77,241  
 Prin. Invest.: R LIEU  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8219 UNIVERSITY OF ALABAMA - HUNTSVILLE 1172**  
 XTE PROPOSAL - X-RAY/OPTICAL CORRELATIONS IN NOVA- LIKE CATA-  
 CLYSMIC VARIABLES  
 02/08/1999 - 01/31/2000 FY00: \$0 Total: \$9,625  
 Prin. Invest.: S ZHANG  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8220 UNIVERSITY OF ALABAMA - HUNTSVILLE 1173**  
 XTE PROPOSAL (30184) - CGRO/BASTE AND RADIO TRIGGERED MULTIWA-  
 VELENGTH OBSERVATIONS OF THE GALACTIC  
 02/09/1999 - 01/31/2000 FY00: \$0 Total: \$8,500  
 Prin. Invest.: S R ZHANG  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8234 UNIVERSITY OF ALABAMA - HUNTSVILLE 1174**  
 BASTE TRIGGERED MULTIWAVELENGTH OBSERVATIONS OF THE GALACTIC SUPERLUMINAL SOURCES GRO J1655-40 AND  
 03/03/1999 - 02/14/2001 FY00: \$0 Total: \$23,779  
*Prin. Invest.:* C ROBINSON  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8245 UNIVERSITY OF ALABAMA - HUNTSVILLE 1175**  
 MONITORING X-RAY EMISSION FROM X-RAY BURSTERS  
 02/10/1999 - 02/14/2000 FY00: \$0 Total: \$10,011  
*Prin. Invest.:* S N ZHANG  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8303 UNIVERSITY OF ALABAMA - HUNTSVILLE 1176**  
 RESTORATION, ENHANCEMENT, AND DISTRIBUTION OF THE ATLAS-1 IMAGING SPECTROMETRIC OBSERVATORY (ISO)  
 03/05/1999 - 03/14/2001 FY00: \$107,200 Total: \$221,869  
*Prin. Invest.:* G A GERMANY  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8353 UNIVERSITY OF ALABAMA - HUNTSVILLE 1177**  
 TESTING MODELS OF RESONANT COMPTON SCATTERING IN X-RAY PULSARS ADP 98  
 03/01/1999 - 02/29/2000 FY00: -\$11 Total: \$19,980  
*Prin. Invest.:* J J BRAINERD  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8432 UNIVERSITY OF ALABAMA - HUNTSVILLE 1178**  
 A HARD AND SOFT X-RAY TRIGGERED OUTBURST STUDY OF AQUILA X-1  
 04/01/1999 - 01/31/2000 FY00: \$0 Total: \$915  
*Prin. Invest.:* S ZHANG  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8433 UNIVERSITY OF ALABAMA - HUNTSVILLE 1179**  
 ASCA PROPOSAL - X-RAY SPECTROSCOPY OF THE TWO GALACTIC SUPERLUMINAL SOURCES: GRO J1655-40 &  
 04/01/1999 - 01/31/2000 FY00: \$0 Total: \$19,000  
*Prin. Invest.:* S ZHANG  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8440 UNIVERSITY OF ALABAMA - HUNTSVILLE 1180**  
 BROAD BAND LONG TERM MONITORING OF X-RAY BURSTERS  
 04/01/1999 - 01/31/2001 FY00: \$0 Total: \$14,700  
*Prin. Invest.:* S ZHANG  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8480 UNIVERSITY OF ALABAMA - HUNTSVILLE 1181**  
 STOCHASTIC PARTICLE ACCELERATION IN IMPULSIVE SOLAR FLARES  
 04/29/1999 - 09/30/2000 FY00: \$56,090 Total: \$112,181  
*Prin. Invest.:* J J MILLER  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8523 UNIVERSITY OF ALABAMA - HUNTSVILLE 1182**  
 MULTIWAVELENGTH EXAMINATION OF GALACTIC SUPERLUMINAL JET SOURCES (LTA98)  
 05/27/1999 - 05/31/2001 FY00: \$73,470 Total: \$143,470  
*Prin. Invest.:* S ZHANG  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8606 UNIVERSITY OF ALABAMA - HUNTSVILLE 1183**  
 GRB AFTERGLOW OBSERVATIONS WITH THE WHIPPLE OBSERVATORY  
 06/07/1999 - 06/14/2000 FY00: \$0 Total: \$9,986  
*Prin. Invest.:* W PACIESAS  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8620 UNIVERSITY OF ALABAMA - HUNTSVILLE 1184**  
 OBSERVATIONS OF BL LAC OBJECTS USING THE BATSE OCCULTATION TECHNIQUE  
 06/18/1999 - 06/14/2000 FY00: \$0 Total: \$14,994  
*Prin. Invest.:* W PACIESAS  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8646 UNIVERSITY OF ALABAMA - HUNTSVILLE 1185**  
 "STUDY OF THE EVOLUTION OF PRECIPITATION AND CLOUD STRUCTURES DURING THE LIFE CYCLES OF TROPICAL...  
 07/19/1999 - 07/31/2000 FY00: \$0 Total: \$21,999  
*Prin. Invest.:* Q HAN  
*Tech. Officer:* GSFC/W B ROSSOW  
*CASE Category:* 13 - PHYSICS

**NAG 5 8690 UNIVERSITY OF ALABAMA - HUNTSVILLE 1186**  
 SYSTEMATIC STUDY OF PROPELLER EFFECTS IN NEUTRON STAR BINARIES  
 07/26/1999 - 07/31/2000 FY00: \$0 Total: \$8,605  
*Prin. Invest.:* S N ZHANG  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8956 UNIVERSITY OF ALABAMA - HUNTSVILLE 1187**  
 SEARCH FOR UV EMISSION LINES FROM THE WARM INTRA CLUSTER MEDIUM - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$36,200 Total: \$36,200  
*Prin. Invest.:* R LIEU  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9045 UNIVERSITY OF ALABAMA - HUNTSVILLE 1188**  
 STUDIES OF ACCRETING NEUTRON STARS WITH RXTE CYCLE 4 OBS. II: TOO OBSERVATIONS OF TRANSIENT LOW-MAS  
 02/25/2000 - 02/28/2001 FY00: \$32,344 Total: \$32,344  
*Prin. Invest.:* W PACIESAS  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9049 UNIVERSITY OF ALABAMA - HUNTSVILLE 1189**  
 FLOOD DAMAGE PREVENTION USING REMOTELY-SENSED DATA  
 02/10/2000 - 04/01/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* J F CRUISE  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE



**NAG 5 9183 UNIVERSITY OF ALABAMA - HUNTSVILLE 1190**  
 DIAGNOSING THE SOFT EXCESS EMISSION OF A1795 CLUST ER OF GALAXIES - BEPOSAX BROAD BAND IMAGING  
 03/07/2000 - 03/14/2001 FY00: \$40,482 Total: \$40,482  
 Prin. Invest.: R LIEU  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9200 UNIVERSITY OF ALABAMA - HUNTSVILLE 1191**  
 INVESTIGATION OF THERMOSPHERIC & IONOSPHERIC CHANGES DURNING IONOSPHERIC STORMSWITH SATELLITE  
 03/09/2000 - 03/14/2001 FY00: \$74,900 Total: \$74,900  
 Prin. Invest.: P RICHARDS  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9244 UNIVERSITY OF ALABAMA - HUNTSVILLE 1192**  
 STUDIES OF ACCRETING NEUTRON STARS WITH RXTE (CYCLE 4 OBSERVATIONS), III: TOO OBSERVATIONS OF  
 03/13/2000 - 03/14/2001 FY00: \$22,593 Total: \$22,593  
 Prin. Invest.: W PACIESAS  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9292 UNIVERSITY OF ALABAMA - HUNTSVILLE 1193**  
 STUDIES OF ACCRETING BLACK HOLES WITH RXTE (CYCLE 4 OBSERVATIONS)-ADP99  
 03/20/2000 - 03/31/2001 FY00: \$22,593 Total: \$22,593  
 Prin. Invest.: W PACIESAS  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9397 UNIVERSITY OF ALABAMA - HUNTSVILLE 1194**  
 THREE-DIMENSIONAL KINETIC SIMULATIONS OF THE COMBI NED CROSS-CURRENT AND TEARING MODE INSTABILITIES  
 04/05/2000 - 04/14/2001 FY00: \$16,500 Total: \$16,500  
 Prin. Invest.: N SINGH  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9508 UNIVERSITY OF ALABAMA - HUNTSVILLE 1195**  
 ANALYSES OF EIT/LASCO OBSERVATIONS USING AVAILABLE MHD MODELS: INVESTIGATION OFCME INITIATION  
 04/25/2000 - 05/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: S WU  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9585 UNIVERSITY OF ALABAMA - HUNTSVILLE 1196**  
 EARTH SCIENCE MARKUP LANGUAGE  
 05/19/2000 - 05/14/2001 FY00: \$160,000 Total: \$160,000  
 Prin. Invest.: D GRAVES  
 Tech. Officer: GSFC/J BEHNKE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 9598 UNIVERSITY OF ALABAMA - HUNTSVILLE 1197**  
 PRODUCTION OF LOOP-TOP HARD X-RAY EMISSION  
 05/15/2000 - 10/14/2001 FY00: \$17,174 Total: \$17,174  
 Prin. Invest.: E K NEWTON  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9686 UNIVERSITY OF ALABAMA - HUNTSVILLE 1198**  
 BATSE/SAX & BATSE/RXTE-ASM JOINT SPECTRAL STUDIES OF GRBS  
 06/05/2000 - 06/14/2001 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: W PACIESAS  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9741 UNIVERSITY OF ALABAMA - HUNTSVILLE 1199**  
 PROPERTIES OF CUSP DIAMAGNETIC CAVITIES  
 06/21/2000 - 06/30/2001 FY00: \$69,999 Total: \$69,999  
 Prin. Invest.: R SHELDON  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9923 UNIVERSITY OF ALABAMA - HUNTSVILLE 1200**  
 THERMAL & NONTHERMAL EMISSION FROM THE INTRACLUST ER MEDIUM OF A 2199  
 09/05/2000 - 09/14/2001 FY00: \$7,600 Total: \$7,600  
 Prin. Invest.: R LIEU  
 Tech. Officer: GSFC/P M ATKINS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10009 UNIVERSITY OF ALABAMA - HUNTSVILLE 1201**  
 PULSARS OLD AND CLOSE IN SPACE: HOT POLAR-CAPS OR MAGNETO-SPHERIC EMISSION  
 09/25/2000 - 09/30/2001 FY00: \$8,600 Total: \$8,600  
 Prin. Invest.: S N ZHANG  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10012 UNIVERSITY OF ALABAMA - HUNTSVILLE 1202**  
 PROBING THE X-RAY EMISSION MECHANISMS OF RECYCLED- PULSARS: PSRJ0034-0534  
 09/25/2000 - 09/30/2001 FY00: \$6,600 Total: \$6,600  
 Prin. Invest.: S N ZHANG  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1229 UNIVERSITY OF ALABAMA - HUNTSVILLE 1203**  
 A THEORETICAL & EXPERIMENTAL INVESTIGATION OF VIBRATIONAL CONTROL OF BRIDGMAN CRYSTAL GROWTH TEC  
 05/31/1996 - 11/30/2000 FY00: \$42,501 Total: \$339,979  
 Prin. Invest.: A FEDOSEYER  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1354 UNIVERSITY OF ALABAMA - HUNTSVILLE 1204**  
 R/S PROTEIN PRECIPITANT SPECIFIC CRITERIA FOR THE IMPACT OF REDUCED GRAVITY ON CRYSTAL PEFECTION  
 06/04/1997 - 11/30/2000 FY00: \$102,000 Total: \$619,406  
 Prin. Invest.: F ROSENBERGER  
 Tech. Officer: MSFC/C R TALLEY, MSFC/J P DOWNEY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1355 UNIVERSITY OF ALABAMA - HUNTSVILLE 1205**  
 RESEARCH "INFRARED SIGNATURES FOR MAMMALIAN CELLS IN CULTURE"  
 06/26/1997 - 11/30/2000 FY00: \$126,997 Total: \$437,984  
 Prin. Invest.: K CHITTUR  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1388 UNIVERSITY OF ALABAMA - HUNTSVILLE 1206**  
 1997 SUMMER TEACHER ENRICHMENT PROGRAM UNDER THE DIRECTION  
 OF DR. GERALD R. KARR.  
 07/01/1997 - 06/30/1999 FY00: -\$2,166 Total: \$141,524  
*Prin. Invest.:* G KARR, L FREEMAN  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1403 UNIVERSITY OF ALABAMA - HUNTSVILLE 1207**  
 THEORETICAL ANALYSIS FOR CONSTRUCTION OF A NON- GRAVITY  
 LABORATORY ON ORBIT  
 08/28/1997 - 09/13/2000 FY00: \$0 Total: \$84,997  
*Prin. Invest.:* L SMALLEY  
*Tech. Officer:* MSFC/J CAMPBELL  
*CASE Category:* 12 - CHEMISTRY

**NAG 8 1456 UNIVERSITY OF ALABAMA - HUNTSVILLE 1208**  
 GROUND BASED EXPERIMENTS IN SUPPORT OF MICRO- GRAVITY  
 RESEARCH RESULTS VAPOR GROWTH OF ORGANIC  
 03/31/1998 - 01/31/2002 FY00: \$90,000 Total: \$237,000  
*Prin. Invest.:* M T ZUGRAV  
*Tech. Officer:* MSFC/P M DOTY  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 8 1464 UNIVERSITY OF ALABAMA - HUNTSVILLE 1209**  
 REDUCTION OF CONVECTION IN CLOSED TUBE VAPOR GROWTH EXPERI-  
 MENTS  
 03/24/1998 - 09/30/2000 FY00: \$20,000 Total: \$200,000  
*Prin. Invest.:* R J NAUMANN  
*Tech. Officer:* MSFC/P M DOTY  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 8 1476 UNIVERSITY OF ALABAMA - HUNTSVILLE 1210**  
 THERMOPHYSICAL PROPERTY MEASUREMENTS OF TE-BASED II-VI SEMI-  
 CONDUCTOR COMPOUNDS  
 03/26/1998 - 09/30/2001 FY00: \$179,000 Total: \$445,250  
*Prin. Invest.:* M BANISH  
*Tech. Officer:* MSFC/S SPEARMAN  
*CASE Category:* 56 - MEDICL

**NAG 8 1548 UNIVERSITY OF ALABAMA - HUNTSVILLE 1211**  
 STUDY OF INSPECTION OF CRITICAL SURFACES AND AEROSPACE  
 SYSTEMS  
 09/24/1998 - 09/24/2000 FY00: \$40,000 Total: \$132,000  
*Prin. Invest.:* G WORKMAN  
*Tech. Officer:* MSFC/S RUSSELL  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 8 1577 UNIVERSITY OF ALABAMA - HUNTSVILLE 1212**  
 CONTROL OF TRANSPORT IN PROTEIN CRYSTAL USING RESTRICTIVE  
 GEOMETRIES  
 12/16/1998 - 11/30/2002 FY00: \$128,999 Total: \$221,999  
*Prin. Invest.:* R J NAVMANN  
*Tech. Officer:* MSFC/B GUYNES  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1598 UNIVERSITY OF ALABAMA - HUNTSVILLE 1213**  
 R/S SUPPORT OF G LIMIT FOR ISOLATION OF SPACE SCIENCE EXPERI-  
 MENTS  
 12/28/1998 - 12/31/2000 FY00: \$36,926 Total: \$94,240  
*Prin. Invest.:* R D HAMPTON  
*Tech. Officer:* MSFC/D C ALHORN  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 8 1613 UNIVERSITY OF ALABAMA - HUNTSVILLE 1214**  
 NATIONAL SPACE SCIENCE AND TECHNOLOGY CENTER FACILITIES  
 06/28/1999 - 09/30/2000 FY00: \$1,000,000 Total: \$5,000,000  
*Prin. Invest.:* L R GREENWOOD  
*Tech. Officer:* MSFC/G S WILSON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1706 UNIVERSITY OF ALABAMA - HUNTSVILLE 1215**  
 UNSOLICITED PROPOSAL ENTITLED "DISTRIBUTED SPACE SOLAR POWER"  
 02/08/2000 - 10/07/2000 FY00: \$48,955 Total: \$48,955  
*Prin. Invest.:* R FORK  
*Tech. Officer:* MSFC/K HERREN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1011 UNIVERSITY OF ALABAMA - HUNTSVILLE 1216**  
 DEVELOP DYNAMIC GEOMAGNETIC CUTOFF RIGIDITY MODEL  
 06/01/1998 - 07/31/1999 FY00: \$0 Total: \$34,992  
*Prin. Invest.:* D F SMART  
*Tech. Officer:* JSC/M GOLIGHTLY  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAS 1 98131 UNIVERSITY OF ALABAMA - HUNTSVILLE 1217**  
 CLOUDS AND THE EARTH'S RADIANT ENERGY SYSTEM SCIENTIFIC INVES-  
 TIGATIONS  
 11/01/1998 - 10/31/2001 FY00: \$267,208 Total: \$515,208  
*Prin. Invest.:* R WELCH  
*Tech. Officer:* LARC/B A WIELICKI  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 31718 UNIVERSITY OF ALABAMA - HUNTSVILLE 1218**  
 EOS ASTER/HIRIS INVESTIGATION  
 01/09/1992 - 12/14/2001 FY00: \$178,709 Total: \$1,615,253  
*Prin. Invest.:* R WELCH  
*Tech. Officer:* GSFC/T BRAKE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 98036 UNIVERSITY OF ALABAMA - HUNTSVILLE 1219**  
 GLAST INSTRUMENT TECHNOLOGY  
 07/07/1998 - 02/15/2000 FY00: \$0 Total: \$1,403,433  
*Prin. Invest.:* J PENDLETON  
*Tech. Officer:* GSFC/M D JOSEPH  
*CASE Category:* 11 - ASTRONOMY

**NAS 5 99179 UNIVERSITY OF ALABAMA - HUNTSVILLE 1220**  
 DEVELOPMENT OF HDF-EOS SUBSETTER SOFTWARE FOR ESDIS.  
 02/12/1999 - 12/31/2000 FY00: \$173,628 Total: \$453,628  
*Prin. Invest.:* M SUMMERLIN  
*Tech. Officer:* GSFC/R E HARBAUGH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 8 00118 UNIVERSITY OF ALABAMA - HUNTSVILLE 1221**  
 THE ADJUSTABLE FOCUS OPTICAL CORRECTION LENS  
 05/10/2000 - 05/09/2001 FY00: \$205,000 Total: \$205,000  
*Prin. Invest.:* B PETERS  
*Tech. Officer:* MSFC/J RAKOCZY, MSFC/W BRANTLY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAS 8 00180 UNIVERSITY OF ALABAMA - HUNTSVILLE 1222**  
 INTERNATIONAL SPACE STATION PROGRAM INDEPENDENT DATABASE  
 ASSESSMENT  
 08/01/2000 - 09/30/2001 FY00: \$60,000 Total: \$60,000  
*Prin. Invest.:* S J GRAVES  
*Tech. Officer:* MSFC/G HULLETT-SMITH, MSFC/G A WOOD  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

## NASA'S UNIVERSITY PROGRAM

## ALABAMA

**NAS 8 37107 UNIVERSITY OF ALABAMA - HUNTSVILLE 1223**  
 STUDY ENTITLED "RESEARCH ON ORBITAL PLASMA-ELECTRODYNAMICS."  
 03/17/1987 - 09/30/1998 FY00: -\$100 Total: \$1,474,441  
 Prin. Invest.: S T WU, N T SINGH, N SINGH  
 Tech. Officer: MSFC/G W JOHNSTON, MSFC/M W CASTLEMAN  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAS 8 98226 UNIVERSITY OF ALABAMA - HUNTSVILLE 1224**  
 THE DESIGN AND DEVELOPMENT OF THE ORBITAL ARRAY OF WIDE ANGLE  
 LENSES MISSION OPTICAL SYSTEM  
 07/01/1998 - 05/31/2001 FY00: \$300,000 Total: \$845,000  
 Prin. Invest.: Y TAKAHASHI  
 Tech. Officer: MSFC/M WATSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 165 UNIVERSITY OF ALABAMA - HUNTSVILLE 1225**  
 TO SUPPORT RESEARCH ACTIVITIES UNDER THE NASA EXPE STIMULATE  
 COMPETITIVE RESEARCH (EPSCOR)  
 11/02/1996 - 08/31/2001 FY00: \$370,000 Total: \$2,269,998  
 Prin. Invest.: J C GREGORY  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 391 UNIVERSITY OF ALABAMA - HUNTSVILLE 1226**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 - 08/31/2001 FY00: \$225,000 Total: \$450,000  
 Prin. Invest.: J GREGORY  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 8 65 UNIVERSITY OF ALABAMA - HUNTSVILLE 1227**  
 RESEARCH & APPLIED TECHNOLOGY & DEVELOPMENT OF FUTURE  
 PROGRAMS  
 02/15/1995 - 08/21/2000 FY00: \$836,633 Total: \$13,321,777  
 Prin. Invest.: S T WU  
 Tech. Officer: MSFC/U URBAN, MSFC/G J FISHMAN  
 CASE Category: 13 - PHYSICS

**NCC 8 97 UNIVERSITY OF ALABAMA - HUNTSVILLE 1228**  
 SPACE AND GROUND BASED CRYSTAL GROWTH USING MAGNETICALLY  
 COUPLED BAFFLE  
 06/13/1996 - 09/29/2002 FY00: \$134,234 Total: \$596,247  
 Prin. Invest.: A G OSTROGORSKY  
 Tech. Officer: MSFC/D SCHAEFER  
 CASE Category: 11 - ASTRONOMY

**NCC 8 99 UNIVERSITY OF ALABAMA - HUNTSVILLE 1229**  
 SELF-DIFFUSION IN LIQUID ELEMENTS  
 05/24/1996 - 12/31/2000 FY00: \$357,562 Total: \$1,382,612  
 Prin. Invest.: F ROSENBERGER  
 Tech. Officer: MSFC/S SPEARMAN  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 8 124 UNIVERSITY OF ALABAMA - HUNTSVILLE 1230**  
 FOR RESEARCH ENT. "DEVELOPMENT OF THE DELTA G EXPERIMENT"  
 12/04/1996 - 12/03/1998 FY00: \$0 Total: \$299,885  
 Prin. Invest.: N U  
 Tech. Officer: MSFC/R KOCZOR, MSFC/D NOEVER  
 CASE Category: 13 - PHYSICS

**NCC 8 132 UNIVERSITY OF ALABAMA - HUNTSVILLE 1231**  
 FOR RESEARCH: "CONSORTIUM FOR MATERIALS DEVELOP- MEFNT IN  
 SPACE."  
 01/29/1997 - 10/31/2001 FY00: \$2,074,601 Total: \$6,555,108  
 Prin. Invest.: G WORKMAN  
 Tech. Officer: MSFC/J PRESSON  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 8 141 UNIVERSITY OF ALABAMA - HUNTSVILLE 1232**  
 GLOBAL CHANGE RESEARCH RELATED TO THE EARTH'S ENERGY AND  
 HYDROLOGY CYCLE  
 09/22/1997 - 09/29/2002 FY00: \$1,202,707 Total: \$14,571,980  
 Prin. Invest.: R MCNIDER  
 Tech. Officer: MSFC/R GREENWOOD, MSFC/J SIMON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 8 146 UNIVERSITY OF ALABAMA - HUNTSVILLE 1233**  
 R/S INVESTIGATION OF SPACE BASED SOLID STATE COHERENT LIDAR  
 UNDER DR. FARZIN AMZAJERDIAN  
 10/02/1997 - 03/31/2001 FY00: \$225,000 Total: \$1,289,919  
 Prin. Invest.: F AMZAJERDIAN  
 Tech. Officer: MSFC/S C JOHNSON, MSFC/B F JONES  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 8 178 UNIVERSITY OF ALABAMA - HUNTSVILLE 1234**  
 SUPPORT FOR THE NEW ACCOUNTING SYSTEM, SPECIFIC- ALLY THE  
 INTEGRATED FINANCIALMANAGEMENT SYSTEM.  
 04/05/1999 - 09/30/2000 FY00: \$0 Total: \$251,770  
 Prin. Invest.: W MORSE  
 Tech. Officer: MSFC/F MAYHALL  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NCC 8 180 UNIVERSITY OF ALABAMA - HUNTSVILLE 1235**  
 INTERNATIONAL SPACE STATION MICROGRAVITY DATA AND INFORMATION  
 SYSTEMS  
 03/19/1999 - 02/28/2002 FY00: \$230,000 Total: \$328,000  
 Prin. Invest.: S J GRAVES  
 Tech. Officer: MSFC/C C LAPENTA  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NCC 8 200 UNIVERSITY OF ALABAMA - HUNTSVILLE 1236**  
 RESEARCH AND DEVELOPMENT  
 08/10/2000 - 08/09/2005 FY00: \$11,268,398 Total: \$11,268,398  
 Prin. Invest.: L R GREENWOOD, B J SCHROER, T D SHURTZ  
 Tech. Officer: MSFC/S COLEMAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 8 203 UNIVERSITY OF ALABAMA - HUNTSVILLE 1237**  
 INVESTIGATION OF INTER-AND INTRA-MOLECULAR INTER- ACTIONS OF  
 RECOMBINANT CANAVALLIN /E. COLI  
 07/20/2000 - 06/30/2001 FY00: \$77,337 Total: \$77,337  
 Prin. Invest.: J D NG  
 Tech. Officer: MSFC/M L PUSEY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 8 205 UNIVERSITY OF ALABAMA - HUNTSVILLE 1238**  
 STRUCTURAL FLUCTUATIONS & THERMOPHYSICAL PROPER- TIES OF  
 MOLTEN II - IV COMPOUNDS  
 09/08/2000 - 11/30/2003 FY00: \$22,730 Total: \$22,730  
 Prin. Invest.: S FETH  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

## ALABAMA

## NASA'S UNIVERSITY PROGRAM

**NCC 8 207 UNIVERSITY OF ALABAMA - HUNTSVILLE 1239**  
 MECHANIZATIONS FOR THE CRYSTALLIZATION OF ZBLAN  
 07/24/2000 - 09/30/2003 FY00: \$16,887 Total: \$16,887  
 Prin. Invest.: W KINKLER  
 Tech. Officer: MSFC/E ETHRIDGE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 9 109 UNIVERSITY OF ALABAMA - HUNTSVILLE 1240**  
 COOPERATIVE AGREEMENT  
 06/22/2000 - 07/01/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J RUPERT  
 Tech. Officer: JSC/N Q QURASHI, JSC/D SICKOREZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30168 UNIVERSITY OF ALABAMA - HUNTSVILLE 1241**  
 IMPACT OF AEROSOLS ON THE CLEAR SKY SHORTWAVE RADIATIVE  
 FLUXES OVERBIOMASS BURNING REGIONS IN  
 09/01/1998 - 08/31/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: D M WELCH/ZHANG, ZHANG  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40018 UNIVERSITY OF ALABAMA - HUNTSVILLE 1242**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 01/09/1997 - 01/31/2001 FY00: \$536,423 Total: \$1,952,926  
 Prin. Invest.: J GREGORY  
 Tech. Officer: GSFC/D E DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50163 UNIVERSITY OF ALABAMA - HUNTSVILLE 1243**  
 AN EMPIRICAL MODEL OF CORONAL HEATING DEDUCED FROM SOHO  
 OBSERVATIONS OF TRANSITION REGION DYNAMICS  
 06/02/1998 - 07/31/2001 FY00: \$0 Total: \$44,000  
 Prin. Invest.: E EMSLIE  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 13 - PHYSICS

**NGT 8 52843 UNIVERSITY OF ALABAMA - HUNTSVILLE 1244**  
 GRADUATE STUDENT RESEARCHERS PROGRAM FELLOWSHIP  
 08/05/1997 - 08/31/2000 FY00: -\$1,805 Total: \$20,195  
 Prin. Invest.: Y B SHTESSEL  
 Tech. Officer: MSFC/J H DOWDY  
 CASE Category: 45 - ELECTRICAL ENGR

**NGT 8 52855 UNIVERSITY OF ALABAMA - HUNTSVILLE 1245**  
 INVESTIGATION OF EJECTOR PERFORMANCE IN A ROCKET BASED  
 COMBINED CYCLE SYSTEM  
 07/23/1998 - 08/14/2000 FY00: -\$22,193 Total: \$21,807  
 Prin. Invest.: B LANDRUM  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 8 52863 UNIVERSITY OF ALABAMA - HUNTSVILLE 1246**  
 DETERMINATION OF H FROM THE INTERFEROMETRIC OBSERVATIONS OF  
 THE SUNYAEV-DEL DOVICH EFFECT  
 07/24/1998 - 08/13/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: J V PARADIS  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 13 - PHYSICS

**NGT 8 52874 UNIVERSITY OF ALABAMA - HUNTSVILLE 1247**  
 1999 SUMMER FACULTY FELLOWSHIP PROGRAM  
 04/12/1999 - 12/31/2000 FY00: -\$11,500 Total: \$867,809  
 Prin. Invest.: G R KARR  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 8 52878 UNIVERSITY OF ALABAMA - HUNTSVILLE 1248**  
 ION CYCLOTRON RESONANCE HEATING OF A PLASMA BY HELICON WAVES  
 FOR THE GASDYNAMICMIRROR FUSION...  
 08/31/1999 - 08/11/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: C HAWK  
 Tech. Officer: MSFC/J DOWDY  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 8 52882 UNIVERSITY OF ALABAMA - HUNTSVILLE 1249**  
 GRADUATE STUDENT RESEARCH PROGRAM "OPTIMIZATION OF A  
 MAGNETIC MIRROR FUSION REACTOR FOR SPACE PROPUL  
 09/15/1999 - 08/14/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: S WU  
 Tech. Officer: MSFC/J DOWDY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 8 52886 UNIVERSITY OF ALABAMA - HUNTSVILLE 1250**  
 DIFFRACTION LIMITED GRAZING INCIDENCE OPTICS  
 05/17/2000 - 08/22/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: W PACIESAS  
 Tech. Officer: MSFC/S NASH-STEVENSON  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NGT 8 52891 UNIVERSITY OF ALABAMA - HUNTSVILLE 1251**  
 INTERACTION OF EXPANDING PLASMA WITH A COMPRESSED MAGNETIC  
 FIELD  
 06/22/2000 - 07/31/2003 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: C HAWK  
 Tech. Officer: MSFC/S NASH-STEVENSON  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 2 1290 UNIVERSITY OF ALABAMA - UNIVERSITY 1252**  
 AUTOMATED MINING OF AVIATION ACCIDENT DATABASES USING CARE  
 TECHNOLOGY  
 02/01/1999 - 12/31/2000 FY00: \$44,705 Total: \$119,106  
 Prin. Invest.: D B BROWN, A S PARRISH, B D DIXON  
 Tech. Officer: ARC/I C STATLER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2004 UNIVERSITY OF ALABAMA - UNIVERSITY 1253**  
 INTELLIGENT ENGINE CONTROL  
 01/10/1997 - 09/30/2000 FY00: \$0 Total: \$184,982  
 Prin. Invest.: K S KRISHNAKUMAR  
 Tech. Officer: GRC/J R SAUS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 2574 UNIVERSITY OF ALABAMA - UNIVERSITY 1254**  
 ABUNDANCE GRADIENTS IN INTRACLUSTR GAS  
 04/12/1994 - 09/30/1999 FY00: \$0 Total: \$73,909  
 Prin. Invest.: R E WHITE III  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3336 UNIVERSITY OF ALABAMA - UNIVERSITY 1255**  
 DUST EMISSION AND ABSORPTION IN BACKLIT SPIRAL GALAXIES  
 08/09/1996 - 08/14/1999 FY00: \$0 Total: \$23,863  
 Prin. Invest.: W C KEEL  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4346 UNIVERSITY OF ALABAMA - UNIVERSITY 1256**  
 PROJECT NOVA  
 05/01/1997 - 02/28/2001 FY00: \$1,075,000 Total: \$2,775,000  
 Prin. Invest.: M FREEMAN  
 Tech. Officer: HQ/D V GALLAWAY  
 CASE Category: 99 - MULTIINTERDISCIPL, OTHER

**NAG 5 6053 UNIVERSITY OF ALABAMA - UNIVERSITY 1257**  
 QUANTIFICATION OF NEUTRAL WIND VARIABILITY IN THE  
 07/28/1997 - 01/31/2000 FY00: \$0 Total: \$154,136  
 Prin. Invest.: D RICHARD  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 6174 UNIVERSITY OF ALABAMA - UNIVERSITY 1258**  
 NUMERICAL AND THEORETICAL STUDIES OF THE INITIATION OF CORONAL  
 MASS EJECTIONS (CMES)  
 08/05/1997 - 05/31/2000 FY00: \$37,665 Total: \$186,458  
 Prin. Invest.: D WU  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 6314 UNIVERSITY OF ALABAMA - UNIVERSITY 1259**  
 FAR-WING LINE SHAPE: APPLICATION TO THE VENUSIAN  
 09/11/1997 - 09/30/2000 FY00: \$0 Total: \$136,000  
 Prin. Invest.: D TIPPING  
 Tech. Officer: GSFC/S HOWARD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6934 UNIVERSITY OF ALABAMA - UNIVERSITY 1260**  
 ASCA PROPOSAL - A SEARCH FOR HOT GAS IN MERGING CLUSTERS  
 01/30/1998 - 01/14/2000 FY00: \$0 Total: \$26,000  
 Prin. Invest.: R E WHITE, II  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7060 UNIVERSITY OF ALABAMA - UNIVERSITY 1261**  
 SAX PROPOSALS - STUDY OF GRO J1744-28 IN QUIESCENCE AND TOO  
 OBSERVATIONS OF AN OUTBURST  
 03/02/1998 - 02/28/1999 FY00: \$0 Total: \$6,700  
 Prin. Invest.: J VANPARADIS  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7220 UNIVERSITY OF ALABAMA - UNIVERSITY 1262**  
 THE WARM PHASE OF THE INTRACLUSTER MEDIUM - A SYNOPTIC STUDY  
 04/09/1998 - 04/14/2000 FY00: \$0 Total: \$10,240  
 Prin. Invest.: R LIEU  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7380 UNIVERSITY OF ALABAMA - UNIVERSITY 1263**  
 XTE PROPOSAL - STUDY OF KHZ QPO IN Z SOURCES  
 05/06/1998 - 06/30/2000 FY00: \$0 Total: \$4,114  
 Prin. Invest.: W PACIESAS  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7381 UNIVERSITY OF ALABAMA - UNIVERSITY 1264**  
 XTE PROPOSAL - MONITORING OBSERVATIONS OF GRO J1744-28  
 05/06/1998 - 06/30/2000 FY00: \$0 Total: \$4,101  
 Prin. Invest.: W PACIESAS  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7702 UNIVERSITY OF ALABAMA - UNIVERSITY 1265**  
 ESTIMATE THE INDIRECT AEROSOL EFFECT AND RETRIEVAL OF RELATED  
 PARAMETERS FROM SATELLITE MEASUREMENT  
 09/23/1998 - 09/30/2000 FY00: \$86,407 Total: \$157,407  
 Prin. Invest.: Q HAN  
 Tech. Officer: GSFC/M MISHCHENKO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8269 UNIVERSITY OF ALABAMA - UNIVERSITY 1266**  
 THEORETICAL CALCULATION OF CO2 FAR-WING LINE SHAPE  
 02/25/1999 - 12/31/2000 FY00: \$0 Total: \$123,700  
 Prin. Invest.: R H TIPPING  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8407 UNIVERSITY OF ALABAMA - UNIVERSITY 1267**  
 MODELING AND COMPARISON OF FE + OPTICAL BALMER LINES (LTS 98)  
 03/15/1999 - 03/14/2001 FY00: \$0 Total: \$3,145  
 Prin. Invest.: J W SULENTIC  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8959 UNIVERSITY OF ALABAMA - UNIVERSITY 1268**  
 NEARBY GALAXIES IN THE FAR-UV: TOWARD COMPARISON WITH HIGH-  
 REDSHIFT GALAXIES - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$29,600 Total: \$29,600  
 Prin. Invest.: W C KEEL  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9388 UNIVERSITY OF ALABAMA - UNIVERSITY 1269**  
 THE PROJECT NOVA CONSORTIUM  
 04/10/2000 - 03/31/2001 FY00: \$1,045,000 Total: \$1,045,000  
 Prin. Invest.: L FREEMAN  
 Tech. Officer: GSFC/D GALLAWAY  
 CASE Category: 99 - MULTIINTERDISCIPL, OTHER

**NAG 5 9855 UNIVERSITY OF ALABAMA - UNIVERSITY 1270**  
 TO EXPAND AND CONTINUE TO DISSEMINATE A HIGHER EDUCATION  
 MODEL FOR CREATING INPRE-SERVICE EDUCATION  
 08/07/2000 - 07/31/2001 FY00: \$118,581 Total: \$118,581  
 Prin. Invest.: M FREEMAN  
 Tech. Officer: GSFC/J HARRINGTON  
 CASE Category: 99 - MULTIINTERDISCIPL, OTHER

## ALASKA

## NASA'S UNIVERSITY PROGRAM

**NAG 8 1422 UNIVERSITY OF ALABAMA - UNIVERSITY 1271**  
 MULTIPLE YEAR GRANT FOR THE PURPOSE OF AEROELASTICITY IN  
 MULTIDISCIPLINARY ANALYSIS AND DESIGN  
 10/28/1997 - 08/31/2000 FY00: \$0 Total: \$105,945  
 Prin. Invest.: T ZEILER, N D HENDRIX  
 Tech. Officer: MSFC/C DILL  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1724 UNIVERSITY OF ALABAMA - UNIVERSITY 1272**  
 "2000 SUMMER FACULTY FELLOWSHIP PROGRAM"  
 06/22/2000 - 03/30/2001 FY00: \$714,892 Total: \$714,892  
 Prin. Invest.: L M FREEMAN  
 Tech. Officer: MSFC/J R PRUITT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 993 UNIVERSITY OF ALABAMA - UNIVERSITY 1273**  
 STOCHASTIC SIMULATION ON INTERSTAGE DYNAMICS-ISS  
 02/27/1998 - 02/28/1999 FY00: -\$10,120 Total: \$118,282  
 Prin. Invest.: G P MOYNIHAN, R G BATSON  
 Tech. Officer: JSC/D M SORLEAU, JSC/F KUO  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 1419 UNIVERSITY OF ALABAMA - UNIVERSITY 1274**  
 DESIGN OF AN INTEGRATED HYBRID SYSTEM  
 08/17/2000 - 08/17/2001 FY00: \$99,999 Total: \$99,999  
 Prin. Invest.: G P, P S ROY, D J FONSECA  
 Tech. Officer: JSC/F Y KUO  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 8 39715 UNIVERSITY OF ALABAMA - UNIVERSITY 1275**  
 PARTICLE INGULFMENT AND PUSHING BY SOLIDIFYING INTERFACES  
 02/17/1993 - 09/29/2000 FY00: \$149,765 Total: \$1,236,938  
 Prin. Invest.: D M STEFANESCU, P A CURRERI, B K DHINDAW  
 Tech. Officer: MSFC/T DE LOACH  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NGT 4 52403 UNIVERSITY OF ALABAMA - UNIVERSITY 1276**  
 GENETICS-BASED ADAPTIVE AGENTS FOR STRATEGY LEARNING IN  
 AEROSPACE APPLICATIONS  
 07/16/1996 - 08/01/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: R E SMITH  
 Tech. Officer: DFRG/K GUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50094 UNIVERSITY OF ALABAMA - UNIVERSITY 1277**  
 GRAVITY WAVE ENERGISTICS DETERMINED FROM COINCIDENT GROUND-  
 BASED OBSERVATIONS OF AIRGLOW EMISSIONS/ G  
 08/26/1997 - 12/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: D HICKEY  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50129 UNIVERSITY OF ALABAMA - UNIVERSITY 1278**  
 DETERMINING LYMPHOCYTE RESPONSIVENESS TO LOW GRAVITY  
 09/09/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: M T LEWIS  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 8 52817 UNIVERSITY OF ALABAMA - UNIVERSITY 1279**  
 GRAD STUDENT RESEARCHERS PROGRAM  
 07/25/1996 - 05/31/1999 FY00: -\$1,099 Total: \$42,901  
 Prin. Invest.: J S LANG  
 Tech. Officer: MSFC/C S CORNELIUS  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 8 52819 UNIVERSITY OF ALABAMA - UNIVERSITY 1280**  
 "1996 SUMMER FACULTY FELLOWSHIP PROGRAM"  
 07/24/1996 - 04/30/2000 FY00: -\$1,944 Total: \$1,582,018  
 Prin. Invest.: L M FREEMAN  
 Tech. Officer: MSFC/F SIX  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9085 UNIVERSITY OF NORTH ALABAMA 1281**  
 EARTH SYS SCIENCE ON-LINE COURSE: ON OPPORTUNITY IN  
 GEOGRAPHY EDUCATION  
 02/17/2000 - 01/31/2001 FY00: \$32,574 Total: \$32,574  
 Prin. Invest.: W R STRONG  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1397 UNIVERSITY OF SOUTH ALABAMA 1282**  
 R/S "DEVELOPMENT OF COUNTERMEASURES & EXERCISE PROTOCOLS  
 TO REDUCE THE EFFECT OF MICROGRAVITY  
 07/23/1997 - 08/31/2000 FY00: \$0 Total: \$37,914  
 Prin. Invest.: P KULKARNI  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 8 161 UNIVERSITY OF SOUTH ALABAMA 1283**  
 REGIONAL/INTERNATIONAL CHANGE ASSESSMENT STRATEGIES,  
 RESEARCH AND TECHNOLOGY  
 01/19/1999 - 01/18/2004 FY00: \$17,872 Total: \$33,105  
 Prin. Invest.: M CARPENTER  
 Tech. Officer: MSFC/R ARNOLD  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

## ALASKA

**NAG 8 1282 UNIVERSITY OF ALASKA - ANCHORAGE 1284**  
 RESEARCH JOVE  
 01/21/1997 - 08/31/1999 FY00: \$0 Total: \$52,369  
 Prin. Invest.: J A OLOFSSON  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30039 UNIVERSITY OF ALASKA - ANCHORAGE 1285**  
 SHALLOW LAKE PROCESSES AND METHANE FLUX TO THE ATM BREAK-UP  
 OF HIGH LATITUDE LAKES  
 10/17/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: K PETERSON  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4068 UNIVERSITY OF ALASKA - FAIRBANKS 1286**  
 SAR, INTERFEROMETRY, AND GLACIER DYNAMICS IN NW NORTH  
 03/20/1997 - 02/28/2000 FY00: \$0 Total: \$189,380  
 Prin. Invest.: C LINGLE  
 Tech. Officer: GSFC/S H GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

## NASA'S UNIVERSITY PROGRAM

## ALASKA

**NAG 5 4170 UNIVERSITY OF ALASKA - FAIRBANKS 1287**  
 CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS  
 03/27/1997 - 12/31/2000 FY00: \$0 Total: \$113,343  
 Prin. Invest.: D JEFFRIES  
 Tech. Officer: GSFC/R H THOMAS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4269 UNIVERSITY OF ALASKA - FAIRBANKS 1288**  
 UNIQUE SIMULTANEOUS OBSERVATIONS OF THE CONJUGATE HEMI-  
 SPHERES WITH THE DYNAMICS EXPLORER AND VIKING  
 03/25/1997 - 12/31/2000 FY00: \$0 Total: \$99,987  
 Prin. Invest.: D D CRAVEN  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 13 - PHYSICS

**NAG 5 4369 UNIVERSITY OF ALASKA - FAIRBANKS 1289**  
 DEFORMATION OF ALASKAN VOLCANOES MEASURED BY RADAR  
 05/14/1997 - 04/30/1999 FY00: \$0 Total: \$79,918  
 Prin. Invest.: D FREYMUELLER  
 Tech. Officer: GSFC/S P GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4981 UNIVERSITY OF ALASKA - FAIRBANKS 1290**  
 ELEVATION CHANGES, INTERANNUAL VARIABILITY, AND AN DYNAMICS  
 FROM ERS, GEOSTAT AND SEASAT RADA ALTIME  
 07/18/1997 - 07/14/2000 FY00: \$0 Total: \$193,055  
 Prin. Invest.: C S LINGLE  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 5019 UNIVERSITY OF ALASKA - FAIRBANKS 1291**  
 VIDEO-IMAGING OF IONOSPHERIC-UPPER ATMOSPHERIC OPTICAL  
 FLASHES FROM AIRCRAFT  
 03/10/1994 - 11/30/2000 FY00: \$0 Total: \$1,944,112  
 Prin. Invest.: D D SENTMAN  
 Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS  
 CASE Category: 13 - PHYSICS

**NAG 5 5097 UNIVERSITY OF ALASKA - FAIRBANKS 1292**  
 A CO-INVESTIGATOR PROPOSAL FOR THE CORNELL UNIVERSITY CAPER  
 12/20/1996 - 06/30/1999 FY00: \$0 Total: \$91,599  
 Prin. Invest.: C DEEHR  
 Tech. Officer: GSFC/W GURKIN  
 CASE Category: 13 - PHYSICS

**NAG 5 5125 UNIVERSITY OF ALASKA - FAIRBANKS 1293**  
 GROUND AND BALLOON-BORNE OBSERVATIONS OF RED SPRITES AND  
 BLUE JETS  
 07/02/1997 - 01/31/2001 FY00: \$56,500 Total: \$343,690  
 Prin. Invest.: E WESTCOTT  
 Tech. Officer: GSFC/H NEEDLEMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 5153 UNIVERSITY OF ALASKA - FAIRBANKS 1294**  
 AURORAL AIRCRAFT OBSERVATIONS CONJUGATE TO FAST FUNDING FOR  
 BASIC GRANT  
 01/14/1998 - 10/31/2000 FY00: \$0 Total: \$342,121  
 Prin. Invest.: H NIELSEN  
 Tech. Officer: GSFC/W JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5218 UNIVERSITY OF ALASKA - FAIRBANKS 1295**  
 CODA: COUPLING OF DYNAMICS AND AURORA-A CO- INVESTIGATION  
 PROPOSAL WITH AEROSPACE PI COLLINS  
 01/15/1999 - 01/14/2001 FY00: \$0 Total: \$13,797  
 Prin. Invest.: COLLINS  
 Tech. Officer: GSFC/W JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5243 UNIVERSITY OF ALASKA - FAIRBANKS 1296**  
 FIRST YEAR OF A TWO YEAR EFFORT NAG5-5243 PI DR. RICHARD  
 COLLINS  
 03/29/1999 - 03/28/2001 FY00: \$21,400 Total: \$38,624  
 Prin. Invest.: R COLLINS  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 6219 UNIVERSITY OF ALASKA - FAIRBANKS 1297**  
 PLASMA STRUCTURE AND PROCESSES AT THE MAGNETOSPHER  
 09/11/1997 - 05/14/2000 FY00: \$27,082 Total: \$149,980  
 Prin. Invest.: D OTTO  
 Tech. Officer: HQ/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 6275 UNIVERSITY OF ALASKA - FAIRBANKS 1298**  
 THE ROLE OF LAND-COVER CHANGE IN HIGH LATITUDE ECO FOR THE  
 GLOBAL CARBON CYCLE  
 08/27/1997 - 08/31/2000 FY00: \$56,875 Total: \$520,000  
 Prin. Invest.: D MCGUIRE  
 Tech. Officer: GSFC/A JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6338 UNIVERSITY OF ALASKA - FAIRBANKS 1299**  
 VALIDATION OF MODIS SNOW & SEA ICE PRODUCTS IN THE SOUTHERN  
 OCEAN  
 10/02/1997 - 09/30/2001 FY00: \$161,137 Total: \$386,521  
 Prin. Invest.: S LI, NONE  
 Tech. Officer: GSFC/D O STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6590 UNIVERSITY OF ALASKA - FAIRBANKS 1300**  
 ARCTIC-BOREAL CLIMATE FEEDBACKS: SYNTHESIS OF INFO RMATION  
 FROM INTEGRATEINTEGRATED RESEARCH PROGRAM  
 11/07/1997 - 06/30/2000 FY00: \$0 Total: \$37,500  
 Prin. Invest.: D CHAPIN, II  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6976 UNIVERSITY OF ALASKA - FAIRBANKS 1301**  
 COMBINED EFFECTS OF PHOTOELECTRONS, FIELD-ALIGNED CURRENTS,  
 PRECIPITA- TION, THEPONDEROMOTIVE AND  
 03/31/1998 - 03/31/2002 FY00: \$68,400 Total: \$212,105  
 Prin. Invest.: G V KHAZANOV  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7299 UNIVERSITY OF ALASKA - FAIRBANKS 1302**  
 RADARSAT IN SUPPORT OF THE ANTARCTIC COASTAL POLYN YA PILOT STUDY  
 04/24/1998 - 03/31/2000 FY00: \$0 Total: \$40,493  
*Prin. Invest.:* M O JEFFRIES  
*Tech. Officer:* GSFC/S GOGINENI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7507 UNIVERSITY OF ALASKA - FAIRBANKS 1303**  
 JERS-1 NORTH AMERICAN BOREAL FOREST MAPPING STUDY TASK PLAN UAFCOMPONENT  
 06/26/1998 - 06/30/2001 FY00: \$47,500 Total: \$131,500  
*Prin. Invest.:* C L WILLIAMS  
*Tech. Officer:* GSFC/D WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7603 UNIVERSITY OF ALASKA - FAIRBANKS 1304**  
 THE INFLUENCE OF PROPAGATING EDDIES ON THE ENVIRON MENT OF THE CONTINEN- TAL SHELF IN THE NORTHERN G  
 07/21/1998 - 07/31/2002 FY00: \$15,065 Total: \$43,021  
*Prin. Invest.:* S R OKKONEN  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7659 UNIVERSITY OF ALASKA - FAIRBANKS 1305**  
 'SPACE GEODETIC CASE STUDIES OF RECENT VOLCANIC EV ENTS IN ALASKA'SENH98-0028  
 09/09/1998 - 02/28/2001 FY00: \$80,000 Total: \$200,000  
*Prin. Invest.:* J T FREYMUELLER  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7683 UNIVERSITY OF ALASKA - FAIRBANKS 1306**  
 MODELING OF THE ATMOSPHERE-MAGNETOSPHERE-IONOSPHER E SYSTEM: BASELINEEFFORT  
 09/15/1998 - 09/30/2001 FY00: \$75,000 Total: \$335,010  
*Prin. Invest.:* M H REES  
*Tech. Officer:* GSFC/S A CURTIS  
*CASE Category:* 13 - PHYSICS

**NAG 5 7799 UNIVERSITY OF ALASKA - FAIRBANKS 1307**  
 A STUDY OF THE INSTANTANEOUS DISTRIBUTION OF BIRK- LAND CURRENTS USING POLAR UVI,SUPERDARN,IMP8  
 12/17/1998 - 09/30/2000 FY00: \$91,585 Total: \$182,821  
*Prin. Invest.:* W A BRISTOW  
*Tech. Officer:* GSFC/L ZANETTI  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8042 UNIVERSITY OF ALASKA - FAIRBANKS 1308**  
 THERMOSPHERIC NEUTRAL WIND RESPONSE TO THE AURORA AT HIGH RESOLUTION; SIMULTANEOUS GROUND-BASED AN  
 01/07/1999 - 01/14/2001 FY00: \$0 Total: \$58,510  
*Prin. Invest.:* J D CRAVEN  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS

**NAG 5 8112 UNIVERSITY OF ALASKA - FAIRBANKS 1309**  
 LARGE BODY IMPACT AND ITS PLANETARY IMPLICATIONS: VENUS, MOON, EARTH  
 02/19/1999 - 02/29/2000 FY00: \$0 Total: \$110,000  
*Prin. Invest.:* D L SHAPRTON  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8549 UNIVERSITY OF ALASKA - FAIRBANKS 1310**  
 SUPPLEMENT TO RADARSAT SUPPORT OF THE ANTARCTIC COASTAL POLYN YA PILOT STUDY, SEA ICE SYMPOSIUM  
 05/21/1999 - 06/30/2000 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* M O JEFFRIES  
*Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/3 LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI,OTHER

**NAG 5 8614 UNIVERSITY OF ALASKA - FAIRBANKS 1311**  
 APPLICATION OF SATELLITE SAR IMAGERY IN MAPPING THE ACTIVE LAYER OF ARCTIC PERMAFROST  
 06/14/1999 - 06/30/2001 FY00: \$69,190 Total: \$120,225  
*Prin. Invest.:* S LI  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8722 UNIVERSITY OF ALASKA - FAIRBANKS 1312**  
 RUSSIAN-US PARTNERSHIP TO STUDY THE 23-KM-DIAMETER EL'GY- GYTGYN IMPACT CRATER, NORTHEAST RUSSIA  
 08/25/1999 - 08/14/2001 FY00: \$22,000 Total: \$46,000  
*Prin. Invest.:* V SHARPTON  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9315 UNIVERSITY OF ALASKA - FAIRBANKS 1313**  
 MONITORING BOREAL LANDCOVER AND ECOSYSTEM DYNAMICS AT REGIONAL SCALES USING INTEGRATED SPACEBORNE  
 03/28/2000 - 04/30/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* C WILLIAMS  
*Tech. Officer:* GSFC/G GUTMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9457 UNIVERSITY OF ALASKA - FAIRBANKS 1314**  
 PLASMA PROCESSES AT THE EARTH'S MAGNETOSPHERIC BOUNDARY AND CUSPS  
 04/24/2000 - 04/30/2001 FY00: \$54,900 Total: \$54,900  
*Prin. Invest.:* A OTTO, NONE  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9513 UNIVERSITY OF ALASKA - FAIRBANKS 1315**  
 PHOTOTROPHIC ORGANISMS AT HYDROTHERMAL VENTS  
 04/25/2000 - 04/30/2001 FY00: \$80,000 Total: \$80,000  
*Prin. Invest.:* G PLUMLEY  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9859 UNIVERSITY OF ALASKA - FAIRBANKS 1316**  
 APPLICATION OF THE TERRESTRIAL ECOSYSTEM MODEL TO SIMULATE CARBON DYNAMICS OF THEBOREAS REGIO  
 08/07/2000 - 08/31/2001 FY00: \$25,000 Total: \$25,000  
*Prin. Invest.:* A D MCGUIRE  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTALSCI, OTHER

**NAG 5 9915 UNIVERSITY OF ALASKA - FAIRBANKS 1317**  
 RETROSPECTIVE ANALYSIS OF SEA ICE CONDITIONS IN THE BERING & CHUKCHI SEAS: 1973 TO 1983  
 08/30/2000 - 08/31/2001 FY00: \$20,447 Total: \$20,447  
*Prin. Invest.:* L MCNUTT  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER



## NASA'S UNIVERSITY PROGRAM

## ARIZONA

**NAS 3 26401 UNIVERSITY OF ALASKA - FAIRBANKS 1318**  
 ACTS PROPAGATION EXPERIMENTS IN ALASKA  
 05/24/1993 - 09/01/2000 FY00: \$36,000 Total: \$916,652  
 Prin. Invest.: C E MAYER  
 Tech. Officer: GRC/R J GUNDERMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 5 32206 UNIVERSITY OF ALASKA - FAIRBANKS 1319**  
 MAINTENANCE/MISSION SUPPORT OF POKER FLAT RESEARCH RANGE  
 10/31/1994 - 11/30/2000 FY00: \$710,600 Total: \$8,639,698  
 Prin. Invest.: S SCHWATAL  
 Tech. Officer: GSFC/M J FILLIS, GSFC/B J FLOWERS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 97133 UNIVERSITY OF ALASKA - FAIRBANKS 1320**  
 HIGH-LATITUDE INTERCOMPARISON & VALIDATION EXPERIMENT  
 09/15/1997 - 05/31/1999 FY00: \$0 Total: \$258,140  
 Prin. Invest.: D L ESLINGER  
 Tech. Officer: GSFC/C MCCLAIN, GSFC/D ENDERS  
 CASE Category: 33 - OCEANOGRAPHY

**NAS 5 97138 UNIVERSITY OF ALASKA - FAIRBANKS 1321**  
 RESEARCH--NUMERICAL RADIATIVE TRANSFER MODELING EXPERI-  
 MENTS & ASSOC. ANALYSES  
 09/23/1997 - 09/22/1999 FY00: \$0 Total: \$269,997  
 Prin. Invest.: K STANNES  
 Tech. Officer: GSFC/C MCCLAIN  
 CASE Category: 33 - OCEANOGRAPHY

**NAS 5 98129 UNIVERSITY OF ALASKA - FAIRBANKS 1322**  
 OPERATION & MANAGEMENT OF ALASKA SAR FACILITY  
 03/30/1998 - 03/31/2003 FY00: \$12,729,300 Total: \$23,951,677  
 Prin. Invest.: N AVAILBLE  
 Tech. Officer: GSFC/P J ONDRUS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCA 5 112 UNIVERSITY OF ALASKA - FAIRBANKS 1323**  
 PROCESSING SYNTHETIC APERTURE RADAR DATA  
 04/27/1988 - 02/28/2000 FY00: \$1,435,000 Total: \$21,145,886  
 Prin. Invest.: J MILLER, W F WEEKS, G WELLER  
 Tech. Officer: GSFC/G H TROFFORD  
 CASE Category: 11 - ASTRONOMY

**NCC 5 327 UNIVERSITY OF ALASKA - FAIRBANKS 1324**  
 CONDUCT RESEARCH IN THE ROLE OF SUPERTHEMAL ELECTRONS IN  
 THE DYNAMICS OF HIGH LATITUDE IONOSPHERIC O  
 04/24/1998 - 04/30/2000 FY00: -\$3,946 Total: \$49,050  
 Prin. Invest.: G V KHAZANOV  
 Tech. Officer: GSFC/B L GILES  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 5 379 UNIVERSITY OF ALASKA - FAIRBANKS 1325**  
 MODIS/SNOW MAPPING: IN-SITU MEASUREMENTS ON THE SNOW OF  
 INTERIOR & ARCTICALASKA  
 01/29/1999 - 09/30/2001 FY00: \$15,000 Total: \$30,000  
 Prin. Invest.: C S BENSON  
 Tech. Officer: GSFC/S K HALL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40014 UNIVERSITY OF ALASKA - FAIRBANKS 1326**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM  
 02/10/1997 - 02/28/2001 FY00: \$212,500 Total: \$807,500  
 Prin. Invest.: J G HAWKINS  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50191 UNIVERSITY OF ALASKA - FAIRBANKS 1327**  
 TIME-DEPENDENT TRANSPORT OF AURORAL ELECTRONS AND SMALL  
 SCALE AURORAL ARCS/STUDENT: LAURA PETICOLA  
 06/05/1998 - 06/30/2001 FY00: \$0 Total: \$41,537  
 Prin. Invest.: D LUMMERZHEIM  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 13 - PHYSICS

**NGT 5 50324 UNIVERSITY OF ALASKA - FAIRBANKS 1328**  
 TREES, FIRE & CLIMATE: EVALUATING POTENTIAL FEED BACKS BETWEEN  
 DISTURBANCE REGIME/FOREST SUCCESSION  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: S F CHAPIN  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7629 UNIV OF NORTH CAROLINA AT WILMINGTON 1329**  
 REMOTE SENSING AND MARINE ECOLOGY AT THE UNIVERSITY OF NORTH  
 CAROLINA AT WILMINGTON  
 08/28/1998 - 07/31/2000 FY00: \$0 Total: \$29,580  
 Prin. Invest.: S D EMSLIE  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

## ARIZONA

**NAG 1 1082 ARIZONA STATE UNIVERSITY 1330**  
 ADVANCED ELECTROMAGNETIC METHODS FOR AEROSPACE VEHICLES  
 12/15/1989 - 12/31/1999 FY00: \$0 Total: \$740,900  
 Prin. Invest.: C A BALANIS  
 Tech. Officer: LARC/G C BARBER, LARC/T G CAMPBELL  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 1 1781 ARIZONA STATE UNIVERSITY 1331**  
 PENETRATION OF HIGH-INTENSITY RADIATED FIELDS INTO GENERAL  
 AVIATION AIRCRAFT  
 12/13/1995 - 12/31/2000 FY00: \$112,000 Total: \$609,095  
 Prin. Invest.: C BALANIS, P TIRKAS  
 Tech. Officer: LARC/T X NGUYEN  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 1 1988 ARIZONA STATE UNIVERSITY 1332**  
 DEVELOPMENT OF COMPREHENSIVE MODELING TECHNIQUES FOR  
 SMART COMPOSITE STRUCTURES  
 01/06/1998 - 01/14/2001 FY00: \$54,469 Total: \$126,849  
 Prin. Invest.: A CHATTOPADYAY  
 Tech. Officer: LARC/C D WIESEMAN, LARC/A R MCGOWAN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2233 ARIZONA STATE UNIVERSITY 1333**  
 DETERM & USE OF SENSITIVITIES FOR REDESIGN/ANAL OF MISTUNED  
 BLADED DISKS - NRA 98-LARC-8  
 09/27/1999 - 07/31/2002 FY00: \$58,106 Total: \$81,175  
 Prin. Invest.: M P MIGNOLET  
 Tech. Officer: LARC/P W GOODE  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 1 2241 ARIZONA STATE UNIVERSITY 1334**  
 USING FORMAL APPROACH FOR REVERSE ENGR'G & DESIGN RECOVERY  
 TO SUPPORT SOFTWARE REUSE--NRA-98-LARC-8  
 09/27/1999 - 08/30/2002 FY00: \$69,057 Total: \$95,582  
 Prin. Invest.: G C GANNOD  
 Prin. Invest.: NONE  
 Tech. Officer: LARC/B L DI VITO  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 1 2283 ARIZONA STATE UNIVERSITY 1335**  
 A NONLINEAR THEORY FOR SMART COMPOSITE STRUCTURES  
 03/24/2000 - 03/14/2003 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: A CHATTOPADHYAY  
 Tech. Officer: LARC/D R AMBUR  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 908 ARIZONA STATE UNIVERSITY 1336**  
 DEVELOPMENT OF A COMPOSITE TAILORING PROCEDURE FOR AIRPLANE  
 WING  
 06/15/1994 - 09/30/1999 FY00: \$0 Total: \$175,017  
 Prin. Invest.: A CHATTOPADHYAY  
 Tech. Officer: ARC/H MIURA, ARC/A SHAHN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 990 ARIZONA STATE UNIVERSITY 1337**  
 MULTIREOLUTION & EXPLICIT METHODS FOR VECTOR FIEL D ANALYSIS &  
 VISUALIZATION  
 07/25/1995 - 06/30/1999 FY00: \$0 Total: \$278,637  
 Prin. Invest.: G M NIELSON  
 Tech. Officer: ARC/A VAZIRI, ARC/T A LASINSKI  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 3 2081 ARIZONA STATE UNIVERSITY 1338**  
 DECOUPLING THE ROLE OF INERTIA & GRAVITY ON PARTIC LE DISPER-  
 SION LSN000850-(NRA-94-OLMSA)  
 09/26/1997 - 09/16/2001 FY00: \$32,437 Total: \$49,456  
 Prin. Invest.: K D SQUIRES  
 Tech. Officer: GRC/A CHAIT  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 3628 ARIZONA STATE UNIVERSITY 1339**  
 THERMAL-INFRARED LABORATORY STUDIES  
 02/25/1997 - 12/31/2000 FY00: \$92,340 Total: \$379,721  
 Prin. Invest.: D R CHRISTENSEN  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3783 ARIZONA STATE UNIVERSITY 1340**  
 DETERMINING THE COMPOSITION OF MARTIAN AND VENUSIA  
 02/21/1997 - 12/31/2000 FY00: \$69,350 Total: \$288,350  
 Prin. Invest.: D FINK  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3892 ARIZONA STATE UNIVERSITY 1341**  
 THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING C  
 02/11/1997 - 01/14/2000 FY00: \$0 Total: \$41,294  
 Prin. Invest.: M POLITANO  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3908 ARIZONA STATE UNIVERSITY 1342**  
 STUDIES IN PLANETARY VOLCANOLOGY  
 02/12/1997 - 02/28/2001 FY00: \$172,095 Total: \$797,053  
 Prin. Invest.: D GREELEY  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3909 ARIZONA STATE UNIVERSITY 1343**  
 STUDIES OF MARTIAN AEOLIAN GEOLOGY  
 02/12/1997 - 02/28/2001 FY00: \$0 Total: \$347,877  
 Prin. Invest.: R GREELEY  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4131 ARIZONA STATE UNIVERSITY 1344**  
 ORGANICS IN METEORITES  
 03/15/1997 - 03/14/2001 FY00: \$115,000 Total: \$345,000  
 Prin. Invest.: D CRONIN  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4280 ARIZONA STATE UNIVERSITY 1345**  
 CHEMICAL CONSTRATS ON THE EARLY SOLAR NEBULA: MOLE ABUN-  
 DANCES IN CLOUDS, DISKS, AND COMETS  
 04/30/1997 - 06/30/2000 FY00: \$0 Total: \$135,000  
 Prin. Invest.: D WYCKOFF  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4296 ARIZONA STATE UNIVERSITY 1346**  
 MARS SURVEYOR LANDING SITE PROPOSAL: SCHIAPARELLI  
 04/04/1997 - 03/31/1999 FY00: -\$22,390 Total: \$9,010  
 Prin. Invest.: M S EDGETT  
 Tech. Officer: GSFC/J M BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4308 ARIZONA STATE UNIVERSITY 1347**  
 FINE-GRAINED MINERALS IN PRIMITIVE CHONDRITES: NEB PROCESSING  
 04/16/1997 - 08/14/2000 FY00: \$0 Total: \$319,016  
 Prin. Invest.: P R BUSECK  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4533 ARIZONA STATE UNIVERSITY 1348**  
 VENUS AEROBOT SURFACE IMAGING SYSTEM (VASSIS)  
 05/06/1997 - 05/31/1999 FY00: -\$5 Total: \$31,995  
 Prin. Invest.: D GREELEY  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4860 ARIZONA STATE UNIVERSITY 1349**  
FOSSIL RECORD OF PRECAMBRIAN LIFE ON LAND  
06/19/1997 - 05/31/2000 FY00: \$0 Total: \$154,560  
Prin. Invest.: P KNAUTH  
Tech. Officer: GSFC/M A MEYER  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4892 ARIZONA STATE UNIVERSITY 1350**  
ORGANIC SYNTHESIS IN ARTIFICIAL SMOKERS  
06/24/1997 - 10/31/1999 FY00: \$0 Total: \$149,483  
Prin. Invest.: D HOLLOWAY  
Tech. Officer: GSFC/M A MEYER  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 6740 ARIZONA STATE UNIVERSITY 1351**  
A SYSTEMATIC STUDY OF GALAXY EVOLUTION WITH ARTIFICIAL NEURAL NETWORKS: A COMBINED ANALYSIS OF ASTRONOMICAL DATA  
12/19/1997 - 12/31/1999 FY00: \$0 Total: \$50,156  
Prin. Invest.: R WINDHORST  
Tech. Officer: GSFC/D K WEST  
CASE Category: 11 - ASTRONOMY

**NAG 5 6741 ARIZONA STATE UNIVERSITY 1352**  
SYSTEMATIC DETERMINATIONS OF ELEMENTAL ABUNDANCES FOR GALACTIC AND LMC NOVAE  
12/19/1997 - 12/31/2000 FY00: \$0 Total: \$200,688  
Prin. Invest.: S STARRFIELD  
Tech. Officer: GSFC/D K WEST  
CASE Category: 11 - ASTRONOMY

**NAG 5 7199 ARIZONA STATE UNIVERSITY 1353**  
SEARCH FOR EXTRA-SOLAR PLANETS FROM SOUTHERN HEMISPHERE  
04/17/1998 - 04/14/2000 FY00: \$0 Total: \$40,000  
Prin. Invest.: P A WEHINGER  
Tech. Officer: HQ/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 7285 ARIZONA STATE UNIVERSITY 1354**  
MINERALOGY AND MICROSTRUCTURES OF SHOCK-INDUCED METALLIC VEINS IN CHONDRITES  
04/29/1998 - 10/30/2000 FY00: \$0 Total: \$81,000  
Prin. Invest.: T G SHARP  
Tech. Officer: HQ/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 7540 ARIZONA STATE UNIVERSITY 1355**  
INVESTIGATION OF NEBULAR PROCESSES THROUGH OXYGEN ISOTOPIC ANALYSIS OF PRIMITIVE METEORITE MATERIAL  
06/18/1998 - 03/31/2001 FY00: \$29,000 Total: \$90,100  
Prin. Invest.: L LESHIN  
Tech. Officer: HQ/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 7573 ARIZONA STATE UNIVERSITY 1356**  
MONITORING THE HAZARDS OF SILICIC VOLCANOES WITH REMOTE SENSING (SENH98-0092)  
07/28/1998 - 09/30/1999 FY00: \$0 Total: \$50,000  
Prin. Invest.: J H FINK  
Tech. Officer: GSFC/F V FREY  
CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7640 ARIZONA STATE UNIVERSITY 1357**  
ISOTOPIC CONSTRAINTS ON THE GENESIS OF CARBONATES IN MARTIAN METEORITE ALH84001  
09/23/1998 - 07/31/2000 FY00: \$0 Total: \$35,000  
Prin. Invest.: D A LESHIN  
Tech. Officer: HQ/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 8158 ARIZONA STATE UNIVERSITY 1358**  
MICROBEAM INVESTIGATIONS OF PRESOLAR AND EARLY SOLAR SYSTEM MATERIALS  
02/04/1999 - 01/31/2001 FY00: \$99,000 Total: \$199,000  
Prin. Invest.: D R HUSS, NONE  
Tech. Officer: HQ/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 8173 ARIZONA STATE UNIVERSITY 1359**  
PRESOLAR GRAINS AS TRACERS OF NEBULA PROCESSES  
02/03/1999 - 02/14/2001 FY00: \$18,000 Total: \$38,000  
Prin. Invest.: D R HUSS  
Tech. Officer: GSFC/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 8278 ARIZONA STATE UNIVERSITY 1360**  
MULTIWAVELENGTH SPECTRAL SYNTHESIS OF NOVA ATMOSPHERES (ADP 98)  
02/24/1999 - 02/28/2001 FY00: \$55,299 Total: \$98,991  
Prin. Invest.: S G STARRFIELD  
Tech. Officer: GSFC/D K WEST  
CASE Category: 11 - ASTRONOMY

**NAG 5 8286 ARIZONA STATE UNIVERSITY 1361**  
ACQUISITION OF A CAMECA IMS 6F SECONDARY ION MASS SPECTROMETER FOR APPLICATIONS IN COSMOCHEMISTRY  
02/22/1999 - 02/28/2001 FY00: \$245,000 Total: \$489,500  
Prin. Invest.: L A LESHIN  
Tech. Officer: GSFC/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 8453 ARIZONA STATE UNIVERSITY 1362**  
ANALYSIS OF AEOLIAN FEATURES AND PROCESSES ON MARS  
04/14/1999 - 04/14/2001 FY00: \$74,000 Total: \$154,000  
Prin. Invest.: R GREELEY  
Tech. Officer: HQ/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 8481 ARIZONA STATE UNIVERSITY 1363**  
FORMATION & EVOLUTION OF BINARY SYSTEMS CONTAINING COLLAPSED STARS (ATP 98)  
04/29/1999 - 04/30/2001 FY00: \$9,420 Total: \$19,420  
Prin. Invest.: M POLITANO  
Tech. Officer: GSFC/D K WEST  
CASE Category: 11 - ASTRONOMY

**NAG 5 8721 ARIZONA STATE UNIVERSITY 1364**  
SMALL IMPACTS ON MARS: ATMOSPHERIC EFFECTS  
08/03/1999 - 08/14/2001 FY00: \$22,500 Total: \$46,500  
Prin. Invest.: R GREELEY  
Tech. Officer: GSFC/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 8805 ARIZONA STATE UNIVERSITY 1365**  
 PHASE-RESOLVED INVESTIGATION OF SUPERSOFT X-RAY BINARIES - FUSE  
 02/01/2000 - 02/14/2001 FY00: \$23,900 Total: \$23,900  
*Prin. Invest.:* A P COWLEY  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8897 ARIZONA STATE UNIVERSITY 1366**  
 GEOLOGICAL STUDIES OF THE GALILEAN SATELLITES  
 01/13/2000 - 01/14/2001 FY00: \$87,700 Total: \$87,700  
*Prin. Invest.:* R GREELY  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8898 ARIZONA STATE UNIVERSITY 1367**  
 MECHANISMS, MANIFESTATION AND IMPLICATIONS OF CRYO MAGMATISM ON EUROPA  
 01/13/2000 - 01/14/2001 FY00: \$41,000 Total: \$41,000  
*Prin. Invest.:* S A FAGENTS  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8948 ARIZONA STATE UNIVERSITY 1368**  
 STUDIES OF MARTIAN AEOLIAN GEOLOGY  
 01/19/2000 - 02/28/2001 FY00: \$88,350 Total: \$88,350  
*Prin. Invest.:* R GREELEY  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9070 ARIZONA STATE UNIVERSITY 1369**  
 MONITORING THE HAZARDS OF SILICIC VOLCANOES WITH REMOTE SENSING  
 02/27/2000 - 02/28/2001 FY00: \$37,500 Total: \$37,500  
*Prin. Invest.:* J FINK  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9263 ARIZONA STATE UNIVERSITY 1370**  
 MULTIDIMENSIONAL STUDIES OF THE CONSEQUENCES OF THERMONUCLEAR RUNAWAYS ON ACCRETING WHITEDWARFS  
 03/13/2000 - 03/14/2001 FY00: \$90,711 Total: \$90,711  
*Prin. Invest.:* S STARRFIELD  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9352 ARIZONA STATE UNIVERSITY 1371**  
 COSMOCHEMISTRY & MINERALOGY OF PRIMITIVE METEORITE  
 03/30/2000 - 03/31/2001 FY00: \$94,000 Total: \$94,000  
*Prin. Invest.:* P R BUSECK  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9381 ARIZONA STATE UNIVERSITY 1372**  
 HIGH PRESSURE MINERALS IN SHOCKED METEORITES: CONSTRAINTS ON SHOCK CONDITIONS AND DURATION  
 04/03/2000 - 03/31/2001 FY00: \$49,000 Total: \$49,000  
*Prin. Invest.:* T G SHARP  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9395 ARIZONA STATE UNIVERSITY 1373**  
 FUSE OBSERVATIONS OF GALACTIC AND LMC NOVAE IN OUT BURST - FUSE  
 04/05/2000 - 04/14/2001 FY00: \$9,084 Total: \$9,084  
*Prin. Invest.:* S G STARRFIELD  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9430 ARIZONA STATE UNIVERSITY 1374**  
 ENVIRONMENTS OF EARLY EVOLUTION AND THE SEARCH FOR AN EXTRA-TERRESTRIAL FOSSIL RECORD  
 04/13/2000 - 05/31/2001 FY00: \$92,316 Total: \$92,316  
*Prin. Invest.:* P KNAUTH  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9451 ARIZONA STATE UNIVERSITY 1375**  
 CHIRAL ANALYSES OF ORGANIC COMPOUNDS IN CARBONACEOUS METEORITES  
 04/12/2000 - 04/14/2001 FY00: \$103,620 Total: \$103,620  
*Prin. Invest.:* S PIZZARELLO  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 9507 ARIZONA STATE UNIVERSITY 1376**  
 MICROBIAL PALEONTOLOGY, MINERALOGY & GEOCHEMISTRY OF MODERN & ANCIENT THERMAL SPRING DEPOSITS & THEI  
 05/23/2000 - 04/30/2001 FY00: \$116,992 Total: \$116,992  
*Prin. Invest.:* J FARMER  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 9773 ARIZONA STATE UNIVERSITY 1377**  
 GEOLOGY OF POTENTIAL LANDING SITES FOR MARTIAN SAMPLE RETURNS  
 07/05/2000 - 06/30/2001 FY00: \$41,900 Total: \$41,900  
*Prin. Invest.:* R GREELY  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1353 ARIZONA STATE UNIVERSITY 1378**  
 R/S "CRYSTALLIZATION MECHANISMS OF MEMBRANE PROTEINS UNDER THE DIRECTION OF DR. JAMES ALLEN"  
 05/19/1997 - 11/30/2000 FY00: \$131,000 Total: \$484,000  
*Prin. Invest.:* J ALLEN  
*Tech. Officer:* MSFC/B GUYNES, MSFC/J MAYO  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 815 ARIZONA STATE UNIVERSITY 1379**  
 DEVELOPE MICROFLOW BIOCHEMICAL SENSORS  
 08/07/1995 - 11/14/2000 FY00: \$0 Total: \$568,000  
*Prin. Invest.:* B TOWE  
*Tech. Officer:* JSC/N R PELLIS  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAS 1 00122 ARIZONA STATE UNIVERSITY 1380**  
 TO INVESTIGATE CONCEPTS FOR CONTROLLING ATTITUDE AND DYNAMICS OF SPACE SOLAR POWER SATELLITES  
 06/16/2000 - 11/15/2000 FY00: \$115,066 Total: \$115,066  
*Prin. Invest.:* B WIE  
*Tech. Officer:* LARC/C L MOORE, MSFC/C CARRINGTON  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAS 5 31371 ARIZONA STATE UNIVERSITY 1381**  
 EOS INVESTIGATION "ADVANCED SPACEBORNE THERMAL EMISSION AND REFLECTION"  
 12/23/1991 - 12/22/2001 FY00: \$220,023 Total: \$1,557,273  
*Prin. Invest.:* P CHRISTENSEN  
*Tech. Officer:* GSFC/H BLODGET  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 346 ARIZONA STATE UNIVERSITY 1382**  
 LABORATORY SIMULATIONS OF MARTIAN AND VENUSIAN AEOPROCESSES  
 03/01/1985 - 12/31/1998 FY00: -\$1,386 Total: \$1,519,300  
*Prin. Invest.:* R GREELEY, J MARSHALL  
*Tech. Officer:* ARC/R M HABERLE, ARC/B F SMITH  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NCC 2 1051 ARIZONA STATE UNIVERSITY 1383**  
 EXPLORING THE LIVING UNIVERSE: ORIGIN, EVOLUTION AND DISTRIBUTION OF LIFE IN THE SOLAR SYSTEM  
 09/22/1998 - 06/30/2003 FY00: \$1,311,600 Total: \$2,349,100  
*Prin. Invest.:* J D FARMER  
*Tech. Officer:* ARC/R A GRAYMES, ARC/W W DOLCI  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 2 1109 ARIZONA STATE UNIVERSITY 1384**  
 OPERATION OF THE PLANETARY AEOLIAN LABORATORY  
 04/02/1999 - 03/31/2001 FY00: \$108,766 Total: \$190,289  
*Prin. Invest.:* R GREELEY  
*Tech. Officer:* ARC/G M MITVALSKY, ARC/B F SMITH  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NCC 2 5127 ARIZONA STATE UNIVERSITY 1385**  
 DEVELOPMENT OF CONTINUOUS AND DISCRETE APPROACHES FOR AERODYNAMIC SENSITIVITY ANALYSIS  
 05/02/1995 - 04/30/1999 FY00: \$0 Total: \$80,000  
*Prin. Invest.:* A CHATTOPADHYAY, J R NARAYAN  
*Tech. Officer:* ARC/E TU  
*CASE Category:* 46 - MECHANICAL ENGR

**NCC 2 5267 ARIZONA STATE UNIVERSITY 1386**  
 MODELING & OPTIMIZATION OF ULTRAFAST SEMICONDUCTOR QUANTUM WELL DEVICES  
 05/15/1998 - 12/31/1999 FY00: \$0 Total: \$134,640  
*Prin. Invest.:* Y H ZHANG  
*Tech. Officer:* ARC/S SAINI  
*CASE Category:* 13 - PHYSICS

**NCC 2 5282 ARIZONA STATE UNIVERSITY 1387**  
 AN ENHANCED MULTIOBJECTIVE OPTIMIZATION TECHNIQUE FOR COMPREHENSIVE AEROSPACE DESIGN  
 07/23/1998 - 01/14/2000 FY00: \$0 Total: \$20,000  
*Prin. Invest.:* A CHATTOPADHYAY  
*Tech. Officer:* ARC/S L LAWRENCE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 5331 ARIZONA STATE UNIVERSITY 1388**  
 MINIATURIZED BIONSENSOR BASED ON LIGHT EMITTING DIODE & PHOTODETECTOR ARRAY  
 07/14/1999 - 06/30/2001 FY00: \$60,000 Total: \$95,000  
*Prin. Invest.:* Y H ZHANG  
*Tech. Officer:* ARC/M MEYYAPPAN, ARC/T R GOVINDAN  
*CASE Category:* 13 - PHYSICS

**NCC 2 5362 ARIZONA STATE UNIVERSITY 1389**  
 TERA-HERTZ MODULATION OF QUANTUM WELL LASERS WITH AN ELECTRICAL FIELD  
 01/19/2000 - 12/14/2000 FY00: \$47,000 Total: \$47,000  
*Prin. Invest.:* Y ZHANG  
*Tech. Officer:* ARC/M MEYYAPPAN  
*CASE Category:* 13 - PHYSICS

**NGT 2 52204 ARIZONA STATE UNIVERSITY 1390**  
 A NOVEL METHOD FOR REDUCING ROTOR BLADE-VORTEX INTERACTION NOISE  
 09/14/1995 - 07/31/1999 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* V L WELLS, A T GLINKA  
*Tech. Officer:* ARC/F H SCHITZ  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 5 22 ARIZONA STATE UNIVERSITY 1391**  
 ADAPTIVE FILTERING FOR HIGHER PIXEL DENSITY IN VOLUME HOLOGRAPHIC DATA STORAGE  
 07/15/1996 - 12/31/1999 FY00: -\$1,143 Total: \$64,857  
*Prin. Invest.:* J CAPONE  
*Tech. Officer:* GSFC/G A SOFFEN, GSFC/D HOLLIS  
*CASE Category:* 22 - COMPUTER SCIENCE

**NGT 5 30007 ARIZONA STATE UNIVERSITY 1392**  
 VARIABILITY OF VOLATILE FLUX FROM VOLCANOES  
 10/11/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* S WILLIAMS  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NGT 5 30221 ARIZONA STATE UNIVERSITY 1393**  
 EFFECTS OF TECTONIC PROCESSES AND CLIMATIC FLUCTUATIONS ON LANDSCAPE DEVELOPMENT  
 08/26/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* J R ARROWSMITH  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50077 ARIZONA STATE UNIVERSITY 1394**  
 INVESTIGATION OF AEOLIAN FEATURES USING RADAR DATA TS, & FIELD WORK  
 08/26/1997 - 12/31/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* R GREELEY  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50276 ARIZONA STATE UNIVERSITY 1395**  
 PARTITIONING OF HIGHLY SIDEROPHILE ELEMENTS AT ELEVATED PRESSURE & TEMPERATURE: CONSTRAINTS ON  
 06/20/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* T SHARP  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 9 21 ARIZONA STATE UNIVERSITY 1396**  
 VESTIBULAT INFO IN EYE HEAD HAND COORDINATION  
 05/13/1997 - 12/31/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* R D SEIDLER  
*Tech. Officer:* JSC/D G SICKCOREZ  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 2 6012 DINE COLL (FORMERLY NAVAJO COMM COLL) 1397**  
 THE AMERICAN INDIAN NETWORK INFORMATION CENTER  
 07/24/1997 - 08/31/2000 FY00: \$0 Total: \$399,990  
*Prin. Invest.:* A SAM  
*Tech. Officer:* ARC/L K ALDERETE, ARC/G S LEE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 9 968 DINE COLL (FORMERLY NAVAJO COMM COLL) 1398**  
 STUDENT MATH & SCIENCE CAREERS INITIATIVES  
 09/24/1997 - 09/30/1999 FY00: \$0 Total: \$392,312  
*Prin. Invest.:* M C BAUER  
*Tech. Officer:* JSC/L ARMENDARIZ  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 9 1172 DINE COLL (FORMERLY NAVAJO COMM COLL) 1399**  
 SCIENCE ENRICHMENT ACTIVITIES  
 09/28/1999 - 09/29/2001 FY00: \$39,640 Total: \$139,640  
*Prin. Invest.:* M C BAUER  
*Tech. Officer:* JSC/L ARMENDARIZ  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG13 99028 DINE COLL (FORMERLY NAVAJO COMM COLL) 1400**  
 EXPANDING THE POOL OF GIS PROFESSIONALS FOR THE NAVAJO NATION  
 09/02/1999 - 09/27/2001 FY00: \$19,500 Total: \$115,540  
*Prin. Invest.:* D ISELY  
*Tech. Officer:* JSC/R TRAVIS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4357 NORTHERN ARIZONA UNIVERSITY 1401**  
 AN INFRARED SPECTROSCOPIC SURVEY OF ICY GRAINS IN CIRCUMSTELLAR ENVIRONMENTS OF YOUNG STARS  
 05/06/1997 - 02/28/2000 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* D TEGLER  
*Tech. Officer:* GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4852 NORTHERN ARIZONA UNIVERSITY 1402**  
 INFRARED SPECTROSCOPY OF PLANETARY SATELLITES  
 07/14/1997 - 04/30/1999 FY00: -\$1,038 Total: \$34,002  
*Prin. Invest.:* D A GRIFFITH  
*Tech. Officer:* GSFC/W HUEBNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4942 NORTHERN ARIZONA UNIVERSITY 1403**  
 GIS IN THE CENTRAL VALLES MARINERIS, MARS  
 06/23/1997 - 09/30/1999 FY00: -\$156 Total: \$43,114  
*Prin. Invest.:* D K LUCCHITTA  
*Tech. Officer:* GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4995 NORTHERN ARIZONA UNIVERSITY 1404**  
 MARS FLUIDIZED EJECTA CRATER STUDIES  
 07/23/1997 - 07/14/2000 FY00: \$0 Total: \$42,800  
*Prin. Invest.:* D BARNES  
*Tech. Officer:* GSFC/J BERGSTALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6790 NORTHERN ARIZONA UNIVERSITY 1405**  
 INFRARED SPECTROSCOPY OF PLANETARY SATELLITES  
 02/10/1998 - 02/14/2001 FY00: \$52,157 Total: \$164,147  
*Prin. Invest.:* C A GRIFFITH  
*Tech. Officer:* GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7210 NORTHERN ARIZONA UNIVERSITY 1406**  
 A PHOTOMETRIC SURVEY OF TRANS-NEPTUNIAN OBJECTS  
 03/26/1998 - 02/28/2000 FY00: \$0 Total: \$28,000  
*Prin. Invest.:* S TEGLER  
*Tech. Officer:* HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7757 NORTHERN ARIZONA UNIVERSITY 1407**  
 A PHOTOMETRIC SURVEY OF TRANS-NEPTUNIAN OBJECTS  
 12/07/1998 - 09/30/2001 FY00: \$82,330 Total: \$126,030  
*Prin. Invest.:* S C TEGLER  
*Tech. Officer:* GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8146 NORTHERN ARIZONA UNIVERSITY 1408**  
 SPECTROSCOPIC INVESTIGATIONS OF EXTRASOLAR PLANETS AND BROWN DWARFS  
 02/04/1999 - 09/30/2000 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* C A GRIFFITH  
*Tech. Officer:* HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8203 NORTHERN ARIZONA UNIVERSITY 1409**  
 X-RAY PROCESSING OF COMETARY ICE MIXTURES  
 02/08/1999 - 01/31/2001 FY00: \$32,000 Total: \$67,000  
*Prin. Invest.:* D M CORNELISON  
*Tech. Officer:* HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8525 NORTHERN ARIZONA UNIVERSITY 1410**  
 FROM GIANT PLANETS TO COOL STARS  
 05/13/1999 - 09/30/2000 FY00: \$0 Total: \$12,875  
*Prin. Invest.:* C GRIFFITH  
*Tech. Officer:* GSFC/J BERGSTALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9214 NORTHERN ARIZONA UNIVERSITY 1411**  
 STRUCTURE AND COMPOSITION OF PLANETARY ATMOSPHERES  
 03/09/2000 - 03/14/2003 FY00: \$80,000 Total: \$80,000  
*Prin. Invest.:* R YELLE  
*Tech. Officer:* GSFC/D BOGAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 5356 NORTHERN ARIZONA UNIVERSITY 1412**  
 STUDY OF THE HOST ROCKS OF CARBONACEOUS MATTER FROM IMPACT DEPOSITS, METEORITES & EXPERIMENTAL PROD  
 09/29/1999 - 03/31/2001 FY00: \$12,000 Total: \$30,000  
*Prin. Invest.:* J H WITKE  
*Tech. Officer:* ARC/M L FONDA, ARC/T E BUNCH  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 5 90080 NORTHERN ARIZONA UNIVERSITY 1413**  
 NATIVE AMERICAN SCIENCE AND ENGINEERING ADVANCEMENT PROGRAM  
 02/17/1998 - 06/30/1999 FY00: -\$8,862 Total: \$41,138  
 Prin. Invest.: G M BOYNE  
 Tech. Officer: GSFC/P SAKIMOTO  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1207 PRESCOTT COLLEGE 1414**  
 MULTI-YEAR NASA GRANT TO SUPPORT THE OSTP/USGCRP NATIONAL ASSESSMENT PROGRAM  
 04/30/1998 - 01/31/2000 FY00: \$0 Total: \$720,879  
 Prin. Invest.: W W ORR  
 Tech. Officer: ARC/G A SHELTON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 2 1409 PRESCOTT COLLEGE 1415**  
 STATE AND LOCAL GOVERNMENT APPLICATIONS PROGRAM  
 06/07/2000 - 05/31/2001 FY00: \$430,000 Total: \$430,000  
 Prin. Invest.: W W ORR  
 Tech. Officer: ARC/E P CONDON  
 CASE Category: 13 - PHYSICS

**NAG 1 2023 UNIVERSITY OF ARIZONA 1416**  
 SATELLITE DATA STUDIES OF STRATOSPHERIC OZONE MY 1/3  
 03/18/1998 - 02/28/2001 FY00: \$97,975 Total: \$279,689  
 Prin. Invest.: L L HOOD  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2041 UNIVERSITY OF ARIZONA 1417**  
 DEVELOPMENT OF ANALYSIS METHODS FOR DESIGNING WITH COMPONENTS  
 03/31/1998 - 03/31/2001 FY00: \$32,072 Total: \$270,001  
 Prin. Invest.: E MADENCI  
 Tech. Officer: LARC/J H STARNES, LARC/D R AMBUR  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2052 UNIVERSITY OF ARIZONA 1418**  
 BOLTED DOUBLE-LAP JOINTS W/SANDWICH PANELS & LAMINATES UNDER MECH & THERMAL LOADING  
 04/08/1998 - 04/07/2000 FY00: \$0 Total: \$155,175  
 Prin. Invest.: E MADENCI  
 Tech. Officer: LARC/S P WALKER  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 1 2218 UNIVERSITY OF ARIZONA 1419**  
 IMPROVEMENT AND REFINEMENT OF THE GPS/MET (GLOBAL POSITIONING SYS/METEOROLOGY) DATA ANAL ALGORITHM  
 08/10/1999 - 07/31/2001 FY00: \$92,000 Total: \$124,000  
 Prin. Invest.: B M HERMAN, D S FENG  
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2317 UNIVERSITY OF ARIZONA 1420**  
 TAILORING OF BONDED AND BOLTED LAP JOINTS AND PATCH REPAIR OF DAMAGED COMPOSITE PANELS  
 06/28/2000 - 10/31/2002 FY00: \$88,449 Total: \$88,449  
 Prin. Invest.: E MADENCI  
 Tech. Officer: LARC/D R AMBUR  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 949 UNIVERSITY OF ARIZONA 1421**  
 ENSEMBLE NEURAL CODING OF PLACE & DIRECTION IN ZER O-G  
 12/20/1994 - 11/30/1999 FY00: \$0 Total: \$1,098,169  
 Prin. Invest.: B L MCNAUGHTON  
 Tech. Officer: ARC/W E HINDS, ARC/C M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1090 UNIVERSITY OF ARIZONA 1422**  
 A FAR INFRARED CAMERA FOR SOFIA  
 10/25/1996 - 08/31/1999 FY00: \$0 Total: \$116,409  
 Prin. Invest.: E T YOUNG, G H RIEKE  
 Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE  
 CASE Category: 11 - ASTRONOMY

**NAG 2 1187 UNIVERSITY OF ARIZONA 1423**  
 INFLUENCE OF UNWEIGHTING ON INSULIN SIGNAL TRANSDUCTION IN MUSCLE  
 03/18/1998 - 04/30/2001 FY00: \$252,363 Total: \$425,994  
 Prin. Invest.: M E TISCHLER, E J HENRICKSEN  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1369 UNIVERSITY OF ARIZONA 1424**  
 EFFECT OF MICROGRAVITY ON THE DEVELOPMENT OF THE IMMUNE SYSTEM  
 08/02/1999 - 12/31/2000 FY00: \$194,075 Total: \$286,746  
 Prin. Invest.: D DELUCA  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1446 UNIVERSITY OF ARIZONA 1425**  
 CONSTRUCTION METHODS FOR VERY LARGE FORMAT FAR INFRARED ARRAYS  
 09/28/2000 - 08/31/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: E T YOUNG  
 Tech. Officer: ARC/C R MCCREIGHT, ARC/R E MCMURRAY  
 CASE Category: 11 - ASTRONOMY

**NAG 3 1869 UNIVERSITY OF ARIZONA 1426**  
 AN EXPERIMENTAL STUDY OF RICHTMYER  
 05/09/1996 - 05/08/2001 FY00: \$0 Total: \$414,000  
 Prin. Invest.: J JACOBS  
 Tech. Officer: GRC/A T CHAI  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2154 UNIVERSITY OF ARIZONA 1427**  
 MODELING OF TRANSPORT PROCESSES IN A SOLID OXIDE ELECTROLYZED GENERATING OXYGEN ON MARS  
 04/10/1998 - 01/31/2002 FY00: \$125,000 Total: \$225,000  
 Prin. Invest.: K R SRIDHAR  
 Tech. Officer: GRC/J S LING, GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 2354 UNIVERSITY OF ARIZONA 1428**  
 RESONANCE EFFECTS IN SINGLE-AND DOUBLE-DIFFUSIVE SYSTEMS UNDER GRAVITY MODULATION  
 03/15/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: C F CHEN  
 Tech. Officer: GRC/C E NIEDERHAUS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 637 UNIVERSITY OF ARIZONA 1429**  
 EUV SPECTRAL IMAGER  
 07/11/1986 - 09/30/2000 FY00: \$0 Total: \$1,411,282  
*Prin. Invest.:* A L BROADFOOT  
*Tech. Officer:* GSFC/L J EARLY, GSFC/R H PLESS  
*CASE Category:* 13 - PHYSICS

**NAG 5 2251 UNIVERSITY OF ARIZONA 1430**  
 THE PHYSICAL FOUNDATIONS OF PARTICLE ACCELERATION BY COLLISIONLESS SHOCKS IN SPACE  
 04/27/1993 - 04/30/1999 FY00: -\$1 Total: \$472,425  
*Prin. Invest.:* J R JOKIPII  
*Tech. Officer:* GSFC/J M GREBOWSKY, GSFC/J D BOHLIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 2962 UNIVERSITY OF ARIZONA 1431**  
 X-RAY SPECTRUM OF THE HIGH REDSHIFT QUASAR B1422+ 23  
 06/09/1995 - 06/14/2000 FY00: \$0 Total: \$54,941  
*Prin. Invest.:* J BECHTOLD  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3042 UNIVERSITY OF ARIZONA 1432**  
 HUBBLE SPACE TELESCOPE (HST) NEAR-INFRARED CAMERA AND MULTI-OBJECT SPECTROMETER (NICMOS) GUARANTEED..  
 08/03/1995 - 09/30/1999 FY00: -\$13 Total: \$11,243,357  
*Prin. Invest.:* D I THOMPSON  
*Tech. Officer:* GSFC/E O RUITBERG  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3068 UNIVERSITY OF ARIZONA 1433**  
 STUDIES OF CLASSICAL NOVAE: CONFRONTATION OF THEORY WITH OBSERVATIONS  
 09/05/1995 - 09/14/1999 FY00: \$0 Total: \$85,749  
*Prin. Invest.:* S G STARRFIELD  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3238 UNIVERSITY OF ARIZONA 1434**  
 X-RAY STUDIES OF THE NEARBY STARS  
 05/28/1996 - 12/31/1999 FY00: \$0 Total: \$214,600  
*Prin. Invest.:* T FLEMMING  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 3359 UNIVERSITY OF ARIZONA 1435**  
 ISO DATA REDUCTION AND ANALYSIS  
 08/28/1996 - 09/30/1999 FY00: -\$31,455 Total: \$561,245  
*Prin. Invest.:* M RIEKE  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3436 UNIVERSITY OF ARIZONA 1436**  
 ABSOLUTE RADIOMETRIC CALIBRATION AND ATMOSPHERIC CORRECTION OF LANDSAT-7 THEMATIC MAPPER.  
 10/07/1996 - 12/31/2000 FY00: \$161,000 Total: \$648,862  
*Prin. Invest.:* C J THOME  
*Tech. Officer:* GSFC/D L WILLIAMS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3630 UNIVERSITY OF ARIZONA 1437**  
 PLANETARY GEOMORPHOLOGY  
 02/12/1997 - 11/30/1999 FY00: \$0 Total: \$100,251  
*Prin. Invest.:* V R BAKER  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3631 UNIVERSITY OF ARIZONA 1438**  
 PLANET FORMATION AND EVOLUTION: COLLISIONAL AND  
 02/12/1997 - 09/30/2000 FY00: \$81,890 Total: \$340,490  
*Prin. Invest.:* R GREENBERG  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3632 UNIVERSITY OF ARIZONA 1439**  
 COPERNICAN CRATERS AND THE PHANEROZOIC IMPACT FLUX  
 02/12/1997 - 01/31/2000 FY00: \$0 Total: \$146,700  
*Prin. Invest.:* A MCEWEN  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3640 UNIVERSITY OF ARIZONA 1440**  
 UTILIZATION OF EOS DATA IN QUANTIFYING THE PROCESS HYDROLOGIC CYCLE IN ARID/SEMI-ARID REGIONS  
 02/12/1997 - 03/31/2001 FY00: \$703,000 Total: \$2,640,302  
*Prin. Invest.:* S SOROOSHAIN  
*Tech. Officer:* GSFC/E Y WOOD  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3785 UNIVERSITY OF ARIZONA 1441**  
 SUB-MILLIMETER SPECTROSCOPY OF ASTROPHYSICALLY-IMP G MOLECULES  
 03/28/1997 - 11/30/2000 FY00: \$60,000 Total: \$228,000  
*Prin. Invest.:* L M ZIURYS  
*Tech. Officer:* GSFC/G STRINGFELLOW  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3791 UNIVERSITY OF ARIZONA 1442**  
 A STUDY OF DUST JET EVOLUTION IN COMET HALLEY  
 03/07/1997 - 02/28/2001 FY00: \$54,730 Total: \$173,734  
*Prin. Invest.:* M M LARSON  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 3796 UNIVERSITY OF ARIZONA 1443**  
 RELATIVE ABUNDANCES OF <sup>13</sup>C, <sup>18</sup>O, <sup>15</sup>N AND <sup>2</sup>H ON TRI B MEASUREMENTS AND REFLECTANCE SPECTROSCOPY  
 03/11/1997 - 03/14/2001 FY00: \$80,845 Total: \$336,145  
*Prin. Invest.:* D H BROWN  
*Tech. Officer:* GSFC/P ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3837 UNIVERSITY OF ARIZONA 1444**  
 IN-SITU RESOURCE UTILIZATION FOR ECONOMICAL SPACE  
 02/19/1997 - 05/31/1999 FY00: \$0 Total: \$36,527  
*Prin. Invest.:* K RAMOHALLI  
*Tech. Officer:* GSFC/R AVANT  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER



## NASA'S UNIVERSITY PROGRAM

**NAG 5 3854 UNIVERSITY OF ARIZONA 1445**  
 THE AGGREGATE REPRESENTATION OF TERRESTRIAL LAND C CLIMATE  
 MODELS  
 12/20/1996 - 06/30/1999 FY00: -\$23 Total: \$458,937  
*Prin. Invest.:* W SHUTTLEWORTH  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3914 UNIVERSITY OF ARIZONA 1446**  
 SUPPORT FOR THE SPACE IMAGERY CENTER  
 02/21/1997 - 09/30/2000 FY00: \$17,000 Total: \$78,601  
*Prin. Invest.:* R G STROM  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3937 UNIVERSITY OF ARIZONA 1447**  
 PLANETARY SPECTROSCOPY  
 03/10/1997 - 07/31/2001 FY00: \$0 Total: \$267,280  
*Prin. Invest.:* D FINK  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3938 UNIVERSITY OF ARIZONA 1448**  
 BEGINNING RESEARCH WITH THE 1.8-METER SPACEWATCH T  
 03/10/1997 - 11/30/2000 FY00: \$0 Total: \$387,660  
*Prin. Invest.:* D GEHRELS  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4001 UNIVERSITY OF ARIZONA 1449**  
 RAPID IDENTIFICATION OF PLANETARY RESOURCES FROM S  
 03/06/1997 - 02/28/2000 FY00: \$0 Total: \$371,999  
*Prin. Invest.:* D MERENYI  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 4042 UNIVERSITY OF ARIZONA 1450**  
 STABILIZATION OF CCD QUANTUM EFFICIENCY IN THE ULT  
 04/07/1997 - 09/14/2000 FY00: \$0 Total: \$273,248  
*Prin. Invest.:* D P LESSER  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4051 UNIVERSITY OF ARIZONA 1451**  
 THEORETICAL STUDIES OF VOLATILE PROCESSES IN THE A SURFACES OF  
 OUTER SOLAR SYSTEM BODIES  
 02/25/1997 - 01/31/2000 FY00: \$0 Total: \$180,000  
*Prin. Invest.:* J I LUNINE  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4084 UNIVERSITY OF ARIZONA 1452**  
 GEOCHEMICAL EVOLUTION OF THE EARTH, MOON, IGNEOUS ERRESTRIAL  
 PLANETARY BODIES  
 03/10/1997 - 06/30/2000 FY00: \$0 Total: \$660,000  
*Prin. Invest.:* D J DRAKE, NONE  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 4107 UNIVERSITY OF ARIZONA 1453**  
 IMPROVED DATA UTILIZATION FROM PIXELATED CDZNT DE GAMMA-RAY  
 ASTRONOMY  
 04/24/1997 - 12/14/1998 FY00: -\$77 Total: \$29,850  
*Prin. Invest.:* H BARBER  
*Tech. Officer:* HQ/J TUELLER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4124 UNIVERSITY OF ARIZONA 1454**  
 SAR INVESTIGATIONS OF LATE PLEISTOCENE PALEOFLOODS PALEOCLI-  
 MATES IN CENTRAL ASIA  
 03/05/1997 - 01/31/2001 FY00: \$5,000 Total: \$178,865  
*Prin. Invest.:* V R BAKER  
*Tech. Officer:* GSFC/R H THOMAS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4142 UNIVERSITY OF ARIZONA 1455**  
 INFRARED EMISSION SPECTROSCOPY OF ASTROPHYSICAL MO  
 04/22/1997 - 03/31/2000 FY00: \$0 Total: \$225,000  
*Prin. Invest.:* D F BERNATH  
*Tech. Officer:* GSFC/H THRONSON  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4158 UNIVERSITY OF ARIZONA 1456**  
 ESCAPED ATMOSPHERIC GASES IN THE MAGNETOSPHERES OF URANUS  
 03/11/1997 - 10/31/2000 FY00: \$0 Total: \$166,602  
*Prin. Invest.:* D L HERBERT  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4160 UNIVERSITY OF ARIZONA 1457**  
 OBSERVATIONS OF INNER-BELT C, E, AND M CLASS ASTER  
 04/09/1997 - 12/31/1999 FY00: -\$3 Total: \$106,337  
*Prin. Invest.:* M T BRITT  
*Tech. Officer:* GSFC/W HUEBNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4161 UNIVERSITY OF ARIZONA 1458**  
 MARS THERMOSPHERE GENERAL CIRCULATION MODEL  
 03/27/1997 - 03/31/1999 FY00: \$0 Total: \$145,000  
*Prin. Invest.:* D W BOUGHER  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4166 UNIVERSITY OF ARIZONA 1459**  
 OBSERVATIONAL STUDIES OF PLANETARY ATMOSPHERES  
 03/15/1997 - 03/14/2000 FY00: \$0 Total: \$180,006  
*Prin. Invest.:* D M HUNTEN  
*Tech. Officer:* GSFC/W HUEBNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4214 UNIVERSITY OF ARIZONA 1460**  
 INTERIORS AND ATMOSPHERES OF THE OUTER PLANETS  
 03/24/1997 - 12/31/2000 FY00: \$67,157 Total: \$265,357  
*Prin. Invest.:* D B HUBBARD  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4380 UNIVERSITY OF ARIZONA 1461**  
 PHYSICS OF CIRCUMSTELLAR ACCRETION DISKS  
 05/06/1997 - 02/28/1999 FY00: -\$41,166 Total: \$48,822  
*Prin. Invest.:* D BENZ  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4451 UNIVERSITY OF ARIZONA 1462**  
 STUDIES IN PLANETARY RINGS  
 05/08/1997 - 12/31/2000 FY00: \$47,500 Total: \$176,900  
*Prin. Invest.:* D C PORCO  
*Tech. Officer:* GSFC/P ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4480 UNIVERSITY OF ARIZONA 1463**  
 EOS/IDS PROJECT TO INTERFACE CLIMATE MODELING ON G SCALES WITH  
 EARTH OBSERVING SYSTEM (EOS) OBSERVAT  
 05/09/1997 - 12/31/1999 FY00: -\$447,654 Total: \$1,282,346  
*Prin. Invest.:* R DICKINSON  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4559 UNIVERSITY OF ARIZONA 1464**  
 THEORY OF CHARGED-PARTICLE TRANSPORT AND ASTROPHYS  
 06/02/1997 - 01/31/2001 FY00: \$28,300 Total: \$158,300  
*Prin. Invest.:* J JOKIPII  
*Tech. Officer:* GSFC/M A FORMAN  
*CASE Category:* 13 - PHYSICS

**NAG 5 4560 UNIVERSITY OF ARIZONA 1465**  
 IR OBSERVATIONS OF ICY SATELLITES IN THE OUTER SOL  
 06/23/1997 - 09/30/1998 FY00: -\$1,662 Total: \$80,707  
*Prin. Invest.:* D H BROWN  
*Tech. Officer:* GSFC/W HUEBNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4598 UNIVERSITY OF ARIZONA 1466**  
 LONG TERM DOPPLER SHIFT AND LINE PROFILE STUDIES O TARGET  
 STARS  
 05/20/1997 - 02/28/2002 FY00: \$0 Total: \$410,967  
*Prin. Invest.:* D S MCMILLAN  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4716 UNIVERSITY OF ARIZONA 1467**  
 COOLING HISTORY OF METEORITES:CONSTRAINTS FROM FE- TALLINE  
 PARTITIONING AND INTERDIFFUSION KINETICS  
 06/23/1997 - 01/31/1999 FY00: -\$2 Total: \$59,998  
*Prin. Invest.:* D GANGULY  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4767 UNIVERSITY OF ARIZONA 1468**  
 NOBLE GAS STUDIES OF EARLY SOLAR SYSTEM HISTORY  
 06/09/1997 - 05/31/2001 FY00: \$54,000 Total: \$173,000  
*Prin. Invest.:* D D SWINDLE  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4774 UNIVERSITY OF ARIZONA 1469**  
 HRI OBSERVATIONS OF HIGH REDSHIFT QUASARS  
 06/18/1997 - 05/31/1999 FY00: -\$530 Total: \$4,770  
*Prin. Invest.:* J BECHTOLD  
*Tech. Officer:* GSFC/R PETRE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4832 UNIVERSITY OF ARIZONA 1470**  
 COSMOGENIC 14C IN METEORITES AND LUNAR SAMPLES  
 06/17/1997 - 05/31/2001 FY00: \$35,000 Total: \$140,000  
*Prin. Invest.:* D JULL  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4834 UNIVERSITY OF ARIZONA 1471**  
 TRANSPORT EQUATIONS OF COSMIC RAYS  
 06/17/1997 - 11/30/2000 FY00: \$51,585 Total: \$201,585  
*Prin. Invest.:* M KOTA  
*Tech. Officer:* GSFC/M A FORMAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4845 UNIVERSITY OF ARIZONA 1472**  
 GAS-GRAIN INTERACTIONS  
 06/27/1997 - 10/31/2000 FY00: \$38,000 Total: \$113,900  
*Prin. Invest.:* D L HOOD  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4944 UNIVERSITY OF ARIZONA 1473**  
 MINERALOGIC AND TRACE-ELEMENT STUDIES OF METEORITE IMPACTS  
 06/23/1997 - 03/14/2001 FY00: \$168,000 Total: \$799,000  
*Prin. Invest.:* D V BOYNTON  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4984 UNIVERSITY OF ARIZONA 1474**  
 MEASURING MARTIAN ATMOSPHERIC WATER VAPOR  
 06/26/1997 - 03/14/2000 FY00: \$166 Total: \$193,067  
*Prin. Invest.:* D L SPRAGUE  
*Tech. Officer:* GSFC/W HUEBNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 5143 UNIVERSITY OF ARIZONA 1475**  
 A TWO-DIMENSIONAL IMAGING FUV SPECTROGRAPH  
 06/23/1997 - 10/31/2000 FY00: \$0 Total: \$672,989  
*Prin. Invest.:* J HOLBERG  
*Tech. Officer:* GSFC/W JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5180 UNIVERSITY OF ARIZONA 1476**  
 COSMIC RAY TRANSPORT AND WAVES IN ASTROPHYSICAL PLASMAS  
 03/09/1998 - 03/08/2001 FY00: \$36,000 Total: \$116,000  
*Prin. Invest.:* G M WEBB  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6070 UNIVERSITY OF ARIZONA 1477**  
 PROPOSAL TITLE "INVESTIGATION OF SIGNAL AND IMAGE FOR CLOUD  
 DETECTION BY GROUND-BASED AND SPACEBORNE  
 07/28/1997 - 06/30/1999 FY00: -\$15 Total: \$101,698  
 Prin. Invest.: J REAGAN  
 Tech. Officer: GSFC/A NEGRI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6184 UNIVERSITY OF ARIZONA 1478**  
 SUBSURFACE LIQUID WATER ON MARS: EVIDENCE FROM CR AND  
 EXOBIOLOGICAL IMPLICATIONS/PRESIDENTIAL EARLY  
 07/30/1997 - 12/31/1999 FY00: \$0 Total: \$131,860  
 Prin. Invest.: D F CHYBA  
 Tech. Officer: GSFC/M A MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 6339 UNIVERSITY OF ARIZONA 1479**  
 VALIDATION AND CORRECTION FOR THE MODIS SPATIAL RE SPONSE  
 10/02/1997 - 09/30/2001 FY00: \$166,249 Total: \$486,679  
 Prin. Invest.: R SCHOWENGERDT  
 Tech. Officer: GSFC/D O STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6362 UNIVERSITY OF ARIZONA 1480**  
 TOMOGRAPHIC ANALYSIS OF EXTREME ULTRAVIOLET OBSERVATIONS OF  
 THE IO PLASMA  
 10/24/1997 - 08/31/1999 FY00: \$0 Total: \$112,199  
 Prin. Invest.: F HERBERT  
 Tech. Officer: GSFC/D BOHLIN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6461 UNIVERSITY OF ARIZONA 1481**  
 LIS VALIDATION STUDIES USING LIGHTNING AT THE KSC- ER  
 10/14/1997 - 09/30/2000 FY00: -\$9,138 Total: \$225,560  
 Prin. Invest.: P KRIDER  
 Tech. Officer: GSFC/D O STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6542 UNIVERSITY OF ARIZONA 1482**  
 EARTH OBSERVATION RESOURCES INFRASTRUCTURE FOR INTEGRATED  
 REGIONAL ASSESSMENTS IN THE SONORAN DESER  
 10/24/1997 - 12/31/1999 FY00: \$0 Total: \$326,929  
 Prin. Invest.: R A SCHOWENGERDT Prin. Invest.: NONE  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6543 UNIVERSITY OF ARIZONA 1483**  
 IMPACT CRATERING AND THE EVOLUTION OF THE TERRESTRIAL  
 PLANETS  
 12/08/1997 - 09/30/2000 FY00: \$142,500 Total: \$442,500  
 Prin. Invest.: H MELOSH  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6611 UNIVERSITY OF ARIZONA 1484**  
 SPACEWATCH SURVEY OF THE SOLAR SYSTEM  
 02/12/1998 - 11/30/2000 FY00: \$71,471 Total: \$223,215  
 Prin. Invest.: R S MCMILLAN  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6620 UNIVERSITY OF ARIZONA 1485**  
 THEORETICAL AND MODELLING SUPPORT FOR THE HELIOSPHERIC  
 MISSIONS  
 11/18/1997 - 11/14/2000 FY00: \$95,000 Total: \$285,000  
 Prin. Invest.: J JOKIPPI  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6663 UNIVERSITY OF ARIZONA 1486**  
 GENERATION AND BEHAVIOR OF SOLAR SYSTEM MAGNETIC FIELDS  
 11/25/1997 - 11/30/1999 FY00: -\$410 Total: \$68,590  
 Prin. Invest.: D H LEVY  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6687 UNIVERSITY OF ARIZONA 1487**  
 USING UARS MLS TO INVESTIGATE THE IMPACTS OF TROPOSPHERE  
 CONVECTION AND PLANETARY-SCALE AND SYMPTOM  
 11/25/1997 - 08/15/1999 FY00: -\$49,302 Total: \$110,327  
 Prin. Invest.: D FU  
 Tech. Officer: GSFC/A DOUGLASS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6779 UNIVERSITY OF ARIZONA 1488**  
 ANALYSIS OF ICE CORES FOR ESTIMATING ACCUMULATION PATTERNS  
 AND PAST ATMOSPHERIC CHEMISTRY IN GREEN  
 01/14/1998 - 12/31/2000 FY00: \$157,235 Total: \$465,595  
 Prin. Invest.: R BALES  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6967 UNIVERSITY OF ARIZONA 1489**  
 THE ROLE OF ATMOSPHERIC-LAND-OCEAN COUPLING IN DETERMINING  
 CLOUDS, PRECIPITATION AND WATER VAPOR  
 03/06/1998 - 06/30/1999 FY00: \$0 Total: \$148,000  
 Prin. Invest.: R FU  
 Tech. Officer: GSFC/K H BERGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7022 UNIVERSITY OF ARIZONA 1490**  
 SILICATE VOLCANISM ON IO  
 04/09/1998 - 03/31/2000 FY00: \$0 Total: \$70,000  
 Prin. Invest.: L KESZTHELYI  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7073 UNIVERSITY OF ARIZONA 1491**  
 A COMPREHENSIVE THEORY FOR M DWARFS, BROWN DWARFS, AND  
 GIANT PLANETS-ATP  
 02/24/1998 - 02/14/2001 FY00: \$90,649 Total: \$263,467  
 Prin. Invest.: A S BURROWS  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7083 UNIVERSITY OF ARIZONA 1492**  
 INFRARED OBSERVATIONS OF SMALL BODIES IN THE OUTER SOLAR  
 SYSTEM  
 03/10/1998 - 03/31/2001 FY00: \$47,940 Total: \$149,939  
 Prin. Invest.: R H BROWN  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7089 UNIVERSITY OF ARIZONA 1493**  
 STRUCTURE OF THE HELIOSPHERE INFERRED FROM VOYAGER UVS  
 MEASUREMENTS  
 02/23/1998 - 01/31/2001 FY00: \$37,700 Total: \$117,700  
*Prin. Invest.:* B R SANDEL  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7151 UNIVERSITY OF ARIZONA 1494**  
 THE PHYSICAL ORIGIN OF GALAXY MORPHOLOGIES AND SCA LING  
 LAWS-ATP  
 03/04/1998 - 03/14/2001 FY00: \$81,954 Total: \$260,097  
*Prin. Invest.:* M STEINMETZ  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7200 UNIVERSITY OF ARIZONA 1495**  
 LINE PROFILE SPECTROMETER TO CONFIRM PLANET DETECT IONS  
 04/30/1998 - 04/14/1999 FY00: -\$134 Total: \$39,866  
*Prin. Invest.:* N J WOOLF  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7211 UNIVERSITY OF ARIZONA 1496**  
 COUPLED PHYSICAL AND CHEMICAL EVOLUTION OF THE SOL AR NEBULA  
 03/26/1998 - 01/31/2001 FY00: \$35,000 Total: \$115,000  
*Prin. Invest.:* J LUNINE  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7215 UNIVERSITY OF ARIZONA 1497**  
 INCORPORATION OF NOBLE GASES INTO INTERSTELLAR ICE ANALOGS  
 03/31/1998 - 05/31/2001 FY00: \$23,000 Total: \$87,300  
*Prin. Invest.:* T D SWINDLE  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7249 UNIVERSITY OF ARIZONA 1498**  
 MODELING OF MOSS AND LICHEN IN THE BOREAL FORESTS  
 04/28/1998 - 04/30/2000 FY00: \$25,573 Total: \$142,221  
*Prin. Invest.:* K E SCHAUDT  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7257 UNIVERSITY OF ARIZONA 1499**  
 ALGORITHM FOR FUTURE OZONE PROFILING USING LMB SC ATTER  
 MEASUREMENTS  
 04/14/1998 - 12/31/2000 FY00: \$97,000 Total: \$262,000  
*Prin. Invest.:* B M HERMAN  
*Tech. Officer:* GSFC/R D MCPETERS  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7364 UNIVERSITY OF ARIZONA 1500**  
 THERMAL HISTORY OF PLANETARY MATERIALS: EXPERIMEN TAL &  
 THEORETICAL STUDIES, AND APPLICATIONS  
 04/29/1998 - 04/30/2001 FY00: \$59,000 Total: \$179,000  
*Prin. Invest.:* J GANGULY  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7470 UNIVERSITY OF ARIZONA 1501**  
 A LIGHT AIRCRAFT RADIOMETRIC PACKAGE FOR MODLAND Q UICK  
 AIRBORNE LOOKS (MQUALS)  
 06/02/1998 - 09/30/1999 FY00: \$0 Total: \$73,913  
*Prin. Invest.:* A HUETE  
*Tech. Officer:* GSFC/J L PRIVETTE  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 7499 UNIVERSITY OF ARIZONA 1502**  
 THEORETICAL MODELS OF EXTRASOLAR GIANT PLANETS  
 06/01/1998 - 04/30/2001 FY00: \$45,000 Total: \$145,000  
*Prin. Invest.:* A BURROWS  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7509 UNIVERSITY OF ARIZONA 1503**  
 METEORITE IMPACT AND GLOBAL CHANGE: A NUMERICAL S TUDY OF THE  
 RESPONSE OF THE EARTH'S CLIMATE TO L  
 06/30/1998 - 08/31/2000 FY00: \$48,042 Total: \$95,008  
*Prin. Invest.:* H MELOSH  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7523 UNIVERSITY OF ARIZONA 1504**  
 CATALINA SKY SURVEY IMPROVEMENTS  
 07/09/1998 - 05/31/2000 FY00: \$0 Total: \$106,149  
*Prin. Invest.:* S LARSON  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7533 UNIVERSITY OF ARIZONA 1505**  
 MOSAIC OF CCDs TO SURVEY FOR ASTEROIDS AND COMETS  
 06/11/1998 - 07/31/2001 FY00: \$0 Total: \$730,006  
*Prin. Invest.:* R S MCMILLAN  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7554 UNIVERSITY OF ARIZONA 1506**  
 PRECURSORY SIGNALS ASSOCIATED WITH REGIONAL AND IN TERANNUAL  
 VARIABILITY OF THE NORTH AMERICAN SUMME  
 06/25/1998 - 06/30/2001 FY00: \$0 Total: \$399,999  
*Prin. Invest.:* W SHUTTLEWORTH  
*Tech. Officer:* GSFC/E ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7716 UNIVERSITY OF ARIZONA 1507**  
 IMPROVING SATELLITE RAIN ESTIMATION ALGORITHMS USI NG COMBINA-  
 TION OF TRIMINSTANTANEOUS PRECIPITATION  
 10/27/1998 - 10/31/2000 FY00: \$110,780 Total: \$307,705  
*Prin. Invest.:* S SOROOSHIAN  
*Tech. Officer:* GSFC/O W THIELE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7734 UNIVERSITY OF ARIZONA 1508**  
 HEAVY ELEMENT ABUNDANCES: CLUES TO THE EVOLUTION OF STAR  
 12/18/1998 - 10/31/2000 FY00: \$102,000 Total: \$238,031  
*Prin. Invest.:* D GARNETT  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7758 UNIVERSITY OF ARIZONA 1509**  
 2MASS ASTEROID AND COMET CATALOG  
 12/08/1998 - 09/30/2000 FY00: \$36,900 Total: \$73,800  
*Prin. Invest.:* M V SYKES  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7763 UNIVERSITY OF ARIZONA 1510**  
 NEXT GENERATION SPACE TELESCOPE (NGST) AD HOC SCIENCE  
 WORKING GROUP (ASWG) ACTIVITY  
 01/14/1999 - 12/31/1999 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* M MEYER  
*Tech. Officer:* GSFC/E SMITH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7780 UNIVERSITY OF ARIZONA 1511**  
 WORKSHOP ON SUN-TERRESTRIAL CLIMATE CONNECTIONS  
 10/29/1998 - 01/31/2001 FY00: \$0 Total: \$69,017  
*Prin. Invest.:* W A SPRIGG  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7793 UNIVERSITY OF ARIZONA 1512**  
 THEORY AND MODELING OF ENERGETIC PARTICLE COMPOSIT ION  
 SPECTRA AND ANISOTROPIES AND TIME VARIA  
 12/10/1998 - 10/31/2000 FY00: \$93,750 Total: \$175,726  
*Prin. Invest.:* J GIACALONE *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/D C LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7834 UNIVERSITY OF ARIZONA 1513**  
 A COMPARISON OF OBSERVATIONS AND GCM SIMULATIONS O F THE  
 QUASI-DECADAL OSCILLATION  
 12/14/1998 - 12/14/2000 FY00: \$42,222 Total: \$84,444  
*Prin. Invest.:* L L HOOD  
*Tech. Officer:* GSFC/R RIND  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7854 UNIVERSITY OF ARIZONA 1514**  
 SOLAR SYSTEM RESEARCH WITH THE SPACEWATCH 1.8-M TELESCOPE  
 12/07/1998 - 11/30/2000 FY00: \$122,460 Total: \$252,450  
*Prin. Invest.:* D S MCMILLAN  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7865 UNIVERSITY OF ARIZONA 1515**  
 ACTIVE VOLCANISM ON IO  
 01/12/1999 - 12/31/2000 FY00: \$65,000 Total: \$130,000  
*Prin. Invest.:* D S MCEWEN  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7923 UNIVERSITY OF ARIZONA 1516**  
 HUBBLE SPACE TELESCOPE ASTRONOMY  
 12/14/1998 - 12/14/2000 FY00: \$3,530,133 Total: \$7,316,333  
*Prin. Invest.:* R THOMPSON  
*Tech. Officer:* GSFC/J JELETIC  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7957 UNIVERSITY OF ARIZONA 1517**  
 TIDAL AND TECTONIC PROCESSES ON EUROPA  
 01/08/1999 - 12/31/2000 FY00: \$44,721 Total: \$88,184  
*Prin. Invest.:* D GREENBERG  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7966 UNIVERSITY OF ARIZONA 1518**  
 STUDY OF SOLAR AND HELIOSPHERIC ENERGETIC IONS VIA ENERGETIC  
 NEUTRAL ATOMS USING CELIAS/SOHO  
 12/15/1998 - 12/31/2000 FY00: \$45,261 Total: \$90,523  
*Prin. Invest.:* K HSIEH  
*Tech. Officer:* GSFC/D C LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7994 UNIVERSITY OF ARIZONA 1519**  
 THE MARS LOWER AND UPPER ATMOSPHERE: DETAILED COUP LING  
 USING GENERAL CIRCULATION MODELS  
 01/06/1999 - 01/14/2001 FY00: \$82,896 Total: \$172,896  
*Prin. Invest.:* S BOUGHER  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8006 UNIVERSITY OF ARIZONA 1520**  
 OBSERVATIONS OF TWO COMET-ASTEROID TRANSITION OBJECTS  
 01/06/1999 - 01/14/2001 FY00: \$0 Total: \$16,283  
*Prin. Invest.:* D CAMPINS  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8015 UNIVERSITY OF ARIZONA 1521**  
 CATALINA NEO SKY SURVEY  
 01/13/1999 - 12/31/2000 FY00: \$282,600 Total: \$582,600  
*Prin. Invest.:* S LARSON  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8051 UNIVERSITY OF ARIZONA 1522**  
 GALILEO EUV OBSERVATIONS OF IO'S PLASMA TORUS AND JUPITER'S  
 ATMOSPHERE  
 01/13/1999 - 01/14/2001 FY00: \$56,916 Total: \$114,918  
*Prin. Invest.:* D HERBERT  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8095 UNIVERSITY OF ARIZONA 1523**  
 PRESERVATION AND ENHANCEMENT OF THE SPACEWATCH DATA  
 ARCHIVES  
 01/29/1999 - 01/31/2001 FY00: \$35,600 Total: \$90,578  
*Prin. Invest.:* J A LARSEN  
*Tech. Officer:* GSFC/J BREDKAMP  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8117 UNIVERSITY OF ARIZONA 1524**  
 COMBINED LIDAR AND PASSIVE SENSING TECHNIQUES FOR CHARACTER-  
 IZATION OF AEROSOL RADIATIVE EFFECTS  
 01/26/1999 - 01/31/2001 FY00: \$105,000 Total: \$209,862  
*Prin. Invest.:* J A REAGAN  
*Tech. Officer:* GSFC/M MISHCHENKO  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8152 UNIVERSITY OF ARIZONA 1525**  
 MARS GLOBAL SURVEYOR AEROBRAKING: THERMOSPHERE- IONOSPHERE  
 TRENDS & MTGCM INTERPRETATION  
 02/11/1999 - 03/31/2001 FY00: \$61,000 Total: \$125,300  
*Prin. Invest.:* S W BOUGHER  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8157 UNIVERSITY OF ARIZONA 1526**  
 SUPPORT AN EXTENSION SPECIALIST IN GEOSPATIAL INFORMATION  
 TECHNOLOGY FOR THE STATE OF ARIZONA  
 02/05/1999 - 01/31/2001 FY00: \$100,000 Total: \$249,949  
*Prin. Invest.:* D YOUNG  
*Tech. Officer:* GSFC/A TUYAHOV  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8185 UNIVERSITY OF ARIZONA 1527**  
 ANALYSIS OF THE CRUSTAL MAGNETIC FIELD OF MARS  
 02/17/1999 - 02/28/2001 FY00: \$40,000 Total: \$82,200  
*Prin. Invest.:* L L HOOD  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8214 UNIVERSITY OF ARIZONA 1528**  
 INFLUENCE OF SUBGRID-SCALE HETEROGENEITY ON REMOTELY  
 SENSED ESTIMATES OF THE AMAZONIAN SURFACE EN  
 03/01/1999 - 02/28/2001 FY00: \$19,972 Total: \$39,725  
*Prin. Invest.:* J W SHUTTLEWORTH  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8239 UNIVERSITY OF ARIZONA 1529**  
 A COMPREHENSIVE THEORETICAL STUDY OF THE INNER 10 PARSECS AT  
 THE GALACTIC CENTER (ATP98)  
 02/26/1999 - 02/28/2001 FY00: \$58,404 Total: \$118,404  
*Prin. Invest.:* F MELIA  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8308 UNIVERSITY OF ARIZONA 1530**  
 QUANTITATIVE INTERPRETATION OF VOLCANIC FEATURES IN MOC  
 IMAGES  
 03/03/1999 - 02/28/2001 FY00: \$0 Total: \$94,300  
*Prin. Invest.:* L KESZTHELYI  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8340 UNIVERSITY OF ARIZONA 1531**  
 COLORIMETRY OF THE GALILEAN SATELLITES  
 04/07/1999 - 03/31/2001 FY00: \$32,853 Total: \$74,784  
*Prin. Invest.:* D E GEISSLER  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8341 UNIVERSITY OF ARIZONA 1532**  
 MODELS AND MODES OF ENABLING THE USE OF NASA EARTH SCIENCE  
 AND DATA IN DECISION MAKING  
 04/07/1999 - 12/31/2000 FY00: \$210,000 Total: \$340,000  
*Prin. Invest.:* C F HUTCHINSON  
*Tech. Officer:* GSFC/C LEE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8349 UNIVERSITY OF ARIZONA 1533**  
 ACCURATE SPECTROPHOTOMETRY OF THE PATHFINDER LANDING SITE  
 02/26/1999 - 02/29/2000 FY00: \$0 Total: \$145,000  
*Prin. Invest.:* P H SMITH  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8426 UNIVERSITY OF ARIZONA 1534**  
 MULTIWAVELENGTH DIAGNOSTICS OF GALAXY EVOLUTION AND STAR  
 FORMATION LISA98  
 04/26/1999 - 04/30/2001 FY00: \$122,162 Total: \$240,664  
*Prin. Invest.:* R C KENNICUTT  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8502 UNIVERSITY OF ARIZONA 1535**  
 SUPPORT OF ACTIVITIES AND OPERATION OF THE GLOBAL ENERGY AND  
 WATER CYCLE EXPERIMENT SCIENCE TEAM  
 05/11/1999 - 05/14/2001 FY00: \$159,296 Total: \$323,898  
*Prin. Invest.:* S SOROOSHIAN  
*Tech. Officer:* GSFC/R SCHIEFFER  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8503 UNIVERSITY OF ARIZONA 1536**  
 AN INTEGRATED INFORMATION SYSTEM FOR MULTI-PURPOSE USER-  
 ADAPTIVE ACCESS TO LAND SURFACE HYDROLOGIC  
 05/11/1999 - 05/14/2001 FY00: \$352,198 Total: \$552,198  
*Prin. Invest.:* S SOROOSHIAN  
*Tech. Officer:* GSFC/E WOOD  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8509 UNIVERSITY OF ARIZONA 1537**  
 IMPLICATIONS OF VOLATILE ICE EMISSIONS FOR GASES AROUND  
 TRANS-NEPTUNIAN OBJECTS  
 06/02/1999 - 06/30/2000 FY00: \$0 Total: \$31,200  
*Prin. Invest.:* J STANSBERRY  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8660 UNIVERSITY OF ARIZONA 1538**  
 VALIDATION OF MODLAND PRODUCTS WITH LIGHT AIRCRAFT AT LBA AND  
 COMMUNITY SITES WITH EQUALS.  
 08/31/1999 - 08/31/2000 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* A HAUTE  
*Tech. Officer:* GSFC/J PRIVETTE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8686 UNIVERSITY OF ARIZONA 1539**  
 MEMBERSHIP TO THE AEROSOL RADIATIVE FORCING SCIENCE TEAM  
 07/16/1999 - 07/14/2001 FY00: \$13,100 Total: \$26,244  
*Prin. Invest.:* K J THOME  
*Tech. Officer:* GSFC/M I MISHCHENKO  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8843 UNIVERSITY OF ARIZONA 1540**  
 THE PLANET-B NEUTRAL MASS SPECTROMETER: THERMOSPHERE-IONOSPHERE  
 STUDIES USING THE MTGCM  
 10/05/1999 - 10/14/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* S W BOUGHER  
*Tech. Officer:* GSFC/J E RICHARDS  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

## NASA'S UNIVERSITY PROGRAM

## ARIZONA

**NAG 5 8908 UNIVERSITY OF ARIZONA 1541**  
 COMPARATIVE PLANETARY GEOMORPHOLOGY  
 12/29/1999 - 12/31/2000 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: V R BAKER  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8911 UNIVERSITY OF ARIZONA 1542**  
 COPERNICAN CRATERS AND THE PHANEROZOIC IMPACT FLUX  
 12/29/1999 - 01/31/2001 FY00: \$40,850 Total: \$40,850  
 Prin. Invest.: A S MCEWEN  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8916 UNIVERSITY OF ARIZONA 1543**  
 THE COMPOSITION OF HYDRATED M AND E-CLASS ASTEROID S: A  
 SEARCH FOR ANALOGS  
 01/05/2000 - 12/31/2000 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: A RIVKIN  
 Tech. Officer: GSFC/J A GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8937 UNIVERSITY OF ARIZONA 1544**  
 NUMERICAL MODELING OF TECTONIC PROCESSES AND METEORITE  
 IMPACTS ON THE GALILEAN SATELLITES  
 01/13/2000 - 01/14/2001 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: E P TURTLE  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8941 UNIVERSITY OF ARIZONA 1545**  
 CYCLODIAL LINEAMENTS AND TIDAL TECTONICS ON EUROPA  
 01/13/2000 - 01/14/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: R GREENBERG  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8949 UNIVERSITY OF ARIZONA 1546**  
 THEORETICAL STUDIES OF VOLATILE PROCESSES IN SOLAR SYSTEM  
 BODIES  
 01/19/2000 - 01/31/2001 FY00: \$28,260 Total: \$28,260  
 Prin. Invest.: J I LUNINE  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 8952 UNIVERSITY OF ARIZONA 1547**  
 IO AND ITS PLASMA TORUS: ATMOSPHERE-MAGNETOSPHERE INTER-  
 ACTIONS  
 01/21/2000 - 12/31/2000 FY00: \$52,940 Total: \$52,940  
 Prin. Invest.: F HERBERT  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8970 UNIVERSITY OF ARIZONA 1548**  
 HYDROCARBONS IN JUPITER'S TROPOSPHERE  
 01/24/2000 - 01/14/2001 FY00: \$50,500 Total: \$50,500  
 Prin. Invest.: D HUNTEN  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8988 UNIVERSITY OF ARIZONA 1549**  
 THEORETICAL STUDIES OF VOLATILE PROCESSES IN SOLAR SYSTEM  
 BODIES  
 01/27/2000 - 01/31/2001 FY00: \$13,000 Total: \$13,000  
 Prin. Invest.: J I LUNINE  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 8995 UNIVERSITY OF ARIZONA 1550**  
 THREE RELATED PROGRAMS ON WHITE DWARFS FUSE  
 01/24/2000 - 01/31/2001 FY00: \$37,700 Total: \$37,700  
 Prin. Invest.: J B HOLBERG  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9072 UNIVERSITY OF ARIZONA 1551**  
 AN ALL-METAL CASSEGRAIN TELESCOPE FOR SPACE APPLICATIONS  
 02/15/2000 - 02/14/2003 FY00: \$75,360 Total: \$75,360  
 Prin. Invest.: J HOLBERG  
 Tech. Officer: GSFC/P CRANE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9079 UNIVERSITY OF ARIZONA 1552**  
 ELECTRON TEMPERATURE IN THE IO PLASMA TORUS: THE KEY TO  
 UNDERSTANDING TORUS ENERGY FLOW  
 02/23/2000 - 02/28/2001 FY00: \$52,800 Total: \$52,800  
 Prin. Invest.: F L HERBERT  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9081 UNIVERSITY OF ARIZONA 1553**  
 NEO FOLLOWUP OBSERVATIONS TO THE NASA NEAR EARTH OBJECTS  
 OBSERVATIONS PROGRAM  
 02/16/2000 - 02/14/2001 FY00: \$86,664 Total: \$86,664  
 Prin. Invest.: S M LARSON  
 Tech. Officer: GSFC/T H MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9100 UNIVERSITY OF ARIZONA 1554**  
 MICROMACHINING OF THZ WAVEGUIDE AND QUASI-OPTICAL  
 COMPONENTS FOR SUB-ORBITAL AND SPACE-BORNE DETE  
 02/24/2000 - 01/31/2001 FY00: \$178,000 Total: \$178,000  
 Prin. Invest.: C K WALKER  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9112 UNIVERSITY OF ARIZONA 1555**  
 EFFECTS OF LITHOLOGIES ON IMPACT CRATERING: NUMERICAL  
 MODELING OF KNOWN TERRESTRIAL CRATERS  
 02/28/2000 - 02/28/2001 FY00: \$39,900 Total: \$39,900  
 Prin. Invest.: E PIERAZZO  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9174 UNIVERSITY OF ARIZONA 1556**  
 PLANNING, COORDINATION, MATERIALS PREPARATION & MARKET SURVEY  
 FOR REGIONAL INFORMATIONAL WORKS  
 03/06/2000 - 02/28/2001 FY00: \$375,493 Total: \$375,493  
 Prin. Invest.: C F HUTCHINSON  
 Tech. Officer: GSFC/A TUYAHOV  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9176 UNIVERSITY OF ARIZONA 1557**  
 INVESTIGATION OF EXTREME TEMPERATURE VOLCANISM ON IO  
 03/08/2000 - 03/31/2001 FY00: \$47,500 Total: \$47,500  
*Prin. Invest.:* L KESZTHELYI  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9181 UNIVERSITY OF ARIZONA 1558**  
 ESTABLISHMENT OF ABSOLUTE SPECTROPHOTOMETRIC STANDARD STARS FROM 100 A TO 10,000 A - ADP99  
 03/07/2000 - 03/14/2001 FY00: \$48,022 Total: \$48,022  
*Prin. Invest.:* J HOLBERG  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9182 UNIVERSITY OF ARIZONA 1559**  
 ANALYSIS OF THE IUE LOW DISPERSION SPECTRA OF THE WHITE DWARF STARS ADP99  
 03/07/2000 - 03/14/2001 FY00: \$48,801 Total: \$48,801  
*Prin. Invest.:* J HOLBERG, NONE  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9198 UNIVERSITY OF ARIZONA 1560**  
 AN IN SITU GEOCHRONOLOGY SYSTEM BASED ON LASER-INDUCED BREAKDOWN SPECTROSCOPY & NOBLE GAS MA  
 03/09/2000 - 03/14/2003 FY00: \$200,196 Total: \$200,196  
*Prin. Invest.:* T SWINDLE  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9205 UNIVERSITY OF ARIZONA 1561**  
 A MULTI-WAVELENGTH STUDY OF THE INNER 50 PC-REGION AT THE GALACTIC CENTER (LTS99)  
 03/14/2000 - 03/14/2001 FY00: \$57,866 Total: \$57,866  
*Prin. Invest.:* F MELIA  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9208 UNIVERSITY OF ARIZONA 1562**  
 LIS VALIDATION STUDIES USING LIGHTNING AT THE KSC- ER  
 03/23/2000 - 03/31/2002 FY00: \$99,754 Total: \$99,754  
*Prin. Invest.:* P KRIDER  
*Tech. Officer:* GSFC/D O STARR  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9234 UNIVERSITY OF ARIZONA 1563**  
 MEASURING MARTIAN ATMOSPHERIC WATER VAPOR & CARBON DIOXIDE  
 03/23/2000 - 03/21/2001 FY00: \$45,000 Total: \$45,000  
*Prin. Invest.:* A L SPRAGUE  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9293 UNIVERSITY OF ARIZONA 1564**  
 REMOTE SENSING FOR DEBRIS FLOODING HAZARD ASSESSMENT IN ARID REGIONS  
 03/24/2000 - 03/31/2001 FY00: \$56,250 Total: \$56,250  
*Prin. Invest.:* V R BAKER  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9306 UNIVERSITY OF ARIZONA 1565**  
 QUASARS AS PROBES (LTS99)  
 03/20/2000 - 03/31/2001 FY00: \$98,422 Total: \$98,422  
*Prin. Invest.:* C D IMPEY  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9325 UNIVERSITY OF ARIZONA 1566**  
 NGST AD HOC SCIENCE WORKING GROUP (ASWG) SUPPORT  
 03/22/2000 - 03/14/2001 FY00: \$15,150 Total: \$15,150  
*Prin. Invest.:* M MEYER  
*Tech. Officer:* GSFC/E P SMITH  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 5 9405 UNIVERSITY OF ARIZONA 1567**  
 "PRECISION MINING" OF LARGE SPECTRAL DATA VOLUMES FOR RAPID IDENTIFICATION OF PLANETARY RESOURCES  
 04/10/2000 - 04/29/2001 FY00: \$184,300 Total: \$184,300  
*Prin. Invest.:* E MERENYI  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9408 UNIVERSITY OF ARIZONA 1568**  
 A DATABASE OF THE WHITE DWARF STARS  
 04/11/2000 - 04/29/2001 FY00: \$149,300 Total: \$149,300  
*Prin. Invest.:* J HOLBERG  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9425 UNIVERSITY OF ARIZONA 1569**  
 PENETRATOR-BASED SAMPLE COLLECTION OF COMETS AND OTHER SMALL BODIES  
 04/17/2000 - 04/29/2001 FY00: \$192,675 Total: \$192,675  
*Prin. Invest.:* W BOYNTON  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9435 UNIVERSITY OF ARIZONA 1570**  
 GEOCHEMICAL EVOLUTION OF THE EARTH, MOON, IGNEOUS METEORITES & OTHER TERRESTRIAL PLANETARY BODIES  
 04/24/2000 - 12/31/2000 FY00: \$222,000 Total: \$222,000  
*Prin. Invest.:* M J DRAKE  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9465 UNIVERSITY OF ARIZONA 1571**  
 A SOUTHERN HEMISPHERE NEO SURVEY  
 04/18/2000 - 03/31/2003 FY00: \$100,323 Total: \$100,323  
*Prin. Invest.:* S LARSON  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9549 UNIVERSITY OF ARIZONA 1572**  
 IMPROVING SATELLITE RAIN EST. ALGORITHMS USING A COMBO. OF TRMM INSTANTANEOUS PRECIP. RETRIEVALS  
 06/19/2000 - 11/30/2000 FY00: \$56,110 Total: \$56,110  
*Prin. Invest.:* S SOROOSHIAN  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE



**NAG 5 9577 UNIVERSITY OF ARIZONA 1573**  
 INFRARED EMISSION SPECTROSCOPY OF ASTROPHYSICAL MOLECULES  
 05/17/2000 - 04/30/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: D F BERNATH  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9609 UNIVERSITY OF ARIZONA 1574**  
 STUDY OF STAR AND PLANETARY SYSTEM FORMATION  
 05/18/2000 - 03/14/2002 FY00: \$35,000 Total: \$35,000  
 Prin. Invest.: A CAMERON  
 Tech. Officer: GSFC/J BOYCE/N  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9691 UNIVERSITY OF ARIZONA 1575**  
 A STUDY OF DUST IN AND AROUND GALAXIES  
 06/26/2000 - 11/14/2000 FY00: \$100,183 Total: \$100,183  
 Prin. Invest.: D F ZARITSKY  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9775 UNIVERSITY OF ARIZONA 1576**  
 CHARACTERIZATION OF THE MARTIAN SURFACE FOR FUTURE MISSIONS  
 06/30/2000 - 06/30/2001 FY00: \$37,800 Total: \$37,800  
 Prin. Invest.: A S MCEWEN  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9790 UNIVERSITY OF ARIZONA 1577**  
 IDENTIFICATION OF MARTIAN HYDROTHERMAL SITES: A GEOLOGIC  
 INVESTIGATION UTILIZING MULTIPLE DATASETS  
 07/11/2000 - 07/31/2001 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: V R BAKER  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9796 UNIVERSITY OF ARIZONA 1578**  
 REPRESENTING HETEROGENEOUS VEGETATION IN THE CPTC ETA  
 MODELS  
 07/20/2000 - 09/30/2001 FY00: \$45,818 Total: \$45,818  
 Prin. Invest.: W SHUTTLEWORTH  
 Tech. Officer: GSFC/P R HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9803 UNIVERSITY OF ARIZONA 1579**  
 SO/GSFC SUPER-LOTIS PROJECT COLLABORATION  
 07/19/2000 - 07/31/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: B PETERSON  
 Tech. Officer: GSFC/N GEHRELS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9957 UNIVERSITY OF ARIZONA 1580**  
 XMM OBSERVATIONS OF ISOLATED ELLIPTICAL GALAXIES  
 09/13/2000 - 09/14/2001 FY00: \$28,000 Total: \$28,000  
 Prin. Invest.: A I ZABLUDOFF  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10007 UNIVERSITY OF ARIZONA 1581**  
 ASSESSMENT OF GRANT PROGRAM UNDER CENTERS OF EXCELLENCE IN  
 APPLICATIONS OF REMOTE SENSING IN REGION  
 09/20/2000 - 09/30/2002 FY00: \$59,410 Total: \$59,410  
 Prin. Invest.: M W WALLENDORF  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1234 UNIVERSITY OF ARIZONA 1582**  
 NON-EQUILIBRIUM PHASE TRANSFORMATION  
 04/25/1996 - 04/30/2000 FY00: \$62,000 Total: \$579,500  
 Prin. Invest.: K A JACKSON  
 Tech. Officer: MSFC/C R TALLEY  
 CASE Category: 13 - PHYSICS

**NAG 8 1469 UNIVERSITY OF ARIZONA 1583**  
 DEVELOPMENT OF SUPERIOR MATERIALS FOR LAYERED SOLID OXIDE  
 ELECTROLYZERS BASED ON MECHANICAL  
 04/17/1998 - 01/31/2002 FY00: \$75,000 Total: \$197,500  
 Prin. Invest.: J R SRIDHAR  
 Tech. Officer: MSFC/P M DOTY  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 8 1520 UNIVERSITY OF ARIZONA 1584**  
 QUANTIFYING THE EFFECTS OF SUB-GRID TOPOGRAPHY & VEGETATION  
 ON SEASONAL SNOW COVER, RELATED SNOWMELT  
 05/29/1998 - 03/31/2001 FY00: \$110,000 Total: \$347,829  
 Prin. Invest.: Z YANG, R BALES, R E DICKINSON  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1523 UNIVERSITY OF ARIZONA 1585**  
 IMPROVING GCM MODELING THRU HYDROLOGICALLY REALISTIC SUB-  
 GRID REPRESENTATION OF LAND-ATMOSPHERE  
 05/26/1998 - 05/31/2001 FY00: \$180,019 Total: \$519,764  
 Prin. Invest.: S SOROOSHIAN, H GUPTA, X GAO  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1531 UNIVERSITY OF ARIZONA 1586**  
 INFLUENCE OF SUBGRID SCALE HETEROGENEITY ON REMOTELY SENSED  
 SURFACE TEMPERATURES  
 06/01/1998 - 05/31/2001 FY00: \$190,000 Total: \$600,000  
 Prin. Invest.: W J SHUTTLEWORTH, J J TOTH  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1542 UNIVERSITY OF ARIZONA 1587**  
 ALDF NETWORK INSTALLATION IN SUPPORT OF LIS VALIDATION  
 07/22/1998 - 07/31/2001 FY00: \$5,000 Total: \$49,300  
 Prin. Invest.: C D WEIDMAN  
 Tech. Officer: MSFC/R J BLAKESLEE, MSFC/S J GOODMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1654 UNIVERSITY OF ARIZONA 1588**  
 MARS ATMOSPHERE AND DUST IN OPTICAL AND RADIO (MATADOR)  
 01/19/2000 - 11/01/2000 FY00: \$77,105 Total: \$77,105  
 Prin. Invest.: P H SMITH  
 Tech. Officer: MSFC/C A DARBY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1667 UNIVERSITY OF ARIZONA 1589**  
 GROWTH OF ROD EUTECTICS  
 05/24/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* K J JACKSON  
*Tech. Officer:* MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 9 923 UNIVERSITY OF ARIZONA 1590**  
 POLYCRYSTALLINE ZIRCONIA ELEC CELL STACK FOR CO2 ELECTROLYSIS  
 01/29/1997 - 05/31/2001 FY00: \$0 Total: \$380,749  
*Prin. Invest.:* K R SRIDHAR  
*Tech. Officer:* JSC/R S BAIRD  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1175 UNIVERSITY OF ARIZONA 1591**  
 SIMULTANEOUS PRODUCTION OF OXYGEN AND METHANE USING ZIRCONIA ELECTROLYSIS  
 11/03/1999 - 11/09/2000 FY00: \$89,869 Total: \$89,869  
*Prin. Invest.:* K R SRIDHAR  
*Tech. Officer:* JSC/R S BAIRD  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 9 1212 UNIVERSITY OF ARIZONA 1592**  
 ULTRA HIGH SPATIAL RESOLUTION HARD X-RAY DETECTORS  
 06/30/2000 - 06/30/2003 FY00: \$99,919 Total: \$99,919  
*Prin. Invest.:* H B  
*Tech. Officer:* JSC/L C SHACKELFORD  
 CASE Category: 13 - PHYSICS

**NAG 9 1229 UNIVERSITY OF ARIZONA 1593**  
 DEFINITION PHASE STUDY REPORT FOR END TO END ISRU MARS FLIGHT EXPERIMENT  
 05/10/2000 - 02/09/2001 FY00: \$850,000 Total: \$850,000  
*Prin. Invest.:* K R SRIDHAR  
*Tech. Officer:* JSC/J CONNOLLY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAGW 1285 UNIVERSITY OF ARIZONA 1594**  
 SPACE INFRARED DETECTOR DEVELOPMENT  
 05/11/1988 - 12/31/1998 FY00: \$0 Total: \$1,363,732  
*Prin. Invest.:* E YOUNG  
*Tech. Officer:* HQ/F C GILLET  
 CASE Category: 11 - ASTRONOMY

**NAGW 2357 UNIVERSITY OF ARIZONA 1595**  
 DEVELOPMENT OF LIGHTWEIGHT MIRRORS FOR STRATOSPHERIC AND SPACE INFRARED AND SUB  
 01/29/1991 - 09/30/1998 FY00: \$0 Total: \$651,400  
*Prin. Invest.:* W F HOFFMAN  
*Tech. Officer:* HQ/M D BICAY  
 CASE Category: 13 - PHYSICS

**NAGW 3543 UNIVERSITY OF ARIZONA 1596**  
 NAGW-3543/UNIV ARIZONA/SEAWIFS CALIBRATION AND ALG ORTHM VALIDATION  
 04/21/1993 - 09/30/1998 FY00: \$0 Total: \$414,079  
*Prin. Invest.:* P N SLATER  
*Tech. Officer:* HQ/D E WICKLAND, HQ/A C JANETOS  
 CASE Category: 33 - OCEANOGRAPHY

**NAGW 4925 UNIVERSITY OF ARIZONA 1597**  
 SAR INVESTIGATIONS OF LATE PLEISTOCENE PALEOFLOODS PALEO-LAKES, AND PALEOCLIMATED IN CENTRAL ASIA  
 02/12/1996 - 12/31/1998 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* V R BAKER  
*Tech. Officer:* HQ/R H THOMAS, HQ/R C HARRISS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG10 92 UNIVERSITY OF ARIZONA 1598**  
 LIGHTNING FIELD CHANGES & DISPLACEMENT CURRENTS AT KSC  
 08/12/1991 - 06/30/2000 FY00: \$0 Total: \$384,351  
*Prin. Invest.:* E P KRIDER  
*Tech. Officer:* KSC/W JAFFERIS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG10 255 UNIVERSITY OF ARIZONA 1599**  
 RESEARCH HYBRID SOLAR AND ARTIFICIAL LIGHTING FOR SPACE LIFE SUPPORT  
 03/17/1999 - 03/15/2001 FY00: \$90,962 Total: \$212,031  
*Prin. Invest.:* J L CUELLO  
*Tech. Officer:* KSC/R WHEELER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG10 286 UNIVERSITY OF ARIZONA 1600**  
 STUDIES OF ATMOSPHERIC ELECTRICITY AT THE KENNEDY SPACE CENTER AND EASTERN RANGE  
 06/05/2000 - 06/30/2001 FY00: \$109,000 Total: \$109,000  
*Prin. Invest.:* E KRIDER  
*Tech. Officer:* KSC/J MADURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG13 99005 UNIVERSITY OF ARIZONA 1601**  
 NASA SOUTHWEST EARTH SCIENCE APPLICATIONS CENTER SAME  
 02/19/1999 - 02/18/2002 FY00: \$0 Total: \$1,499,981  
*Prin. Invest.:* R DAVIS  
*Tech. Officer:* SSC/C HILL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 1 18939 UNIVERSITY OF ARIZONA 1602**  
 SAGE III SCIENCE INVESTIGATION SUPPORT - P.I. - B. HERMAN  
 02/28/1990 - 01/31/2005 FY00: \$225,000 Total: \$924,500  
*Prin. Invest.:* B M HERMAN  
*Tech. Officer:* LARC/G L MADDREA JR, LARC/L R MCMASTER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 19953 UNIVERSITY OF ARIZONA 1603**  
 SCIENCE SUPPORT TO THE LITE SCIENCE TEAM  
 05/24/1993 - 05/23/2000 FY00: -\$1 Total: \$268,999  
*Prin. Invest.:* J A REAGAN  
*Tech. Officer:* LARC/G L MADDREA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 99055 UNIVERSITY OF ARIZONA 1604**  
 ACTIVE TROPOSPHERIC OZONE AND MOISTURE SOUNDER (ATOMS)  
 04/21/1999 - 05/31/2001 FY00: \$168,000 Total: \$312,000  
*Prin. Invest.:* B M HERMAN  
*Tech. Officer:* LARC/J R HILL, LARC/F PERI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

## NASA'S UNIVERSITY PROGRAM

## ARIZONA

**NAS 1 99102 UNIVERSITY OF ARIZONA 1605**  
 PICASSO-CENA SCIENCE TEAM SUPPORT FOR AEROL AND CLOUD  
 STUDIES  
 05/17/1999 - 05/16/2001 FY00: \$47,650 Total: \$72,650  
 Prin. Invest.: J A REAGAN  
 Tech. Officer: LARC/G GIBSON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 31364 UNIVERSITY OF ARIZONA 1606**  
 EOS/MODIS INVESTIGATION FROM DR. HUETE  
 01/24/1992 - 12/14/2001 FY00: \$526,000 Total: \$3,506,109  
 Prin. Invest.: A HUETE  
 Tech. Officer: GSFC/H OSEROFF  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 31717 UNIVERSITY OF ARIZONA 1607**  
 EOS INVESTIGATION  
 01/03/1992 - 12/14/2001 FY00: \$914,158 Total: \$7,611,908  
 Prin. Invest.: P N SLATER  
 Tech. Officer: GSFC/L STUART  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 98169 UNIVERSITY OF ARIZONA 1608**  
 NGST INTEGRATED SCIENCE INSTRUMENT MODULE (ISIM) CONCEPT  
 STUDY  
 06/24/1998 - 12/31/1999 FY00: \$0 Total: \$170,000  
 Prin. Invest.: J BECHTOLD, T P GREENE  
 Tech. Officer: GSFC/L R PURVES  
 CASE Category: 11 - ASTRONOMY

**NAS 5 99208 UNIVERSITY OF ARIZONA 1609**  
 PHASE I (DESIGN) OF THE ADVANCED MIRROR SYSTEM DEMONSTRATOR  
 (AMSD).  
 05/14/1999 - 09/15/1999 FY00: \$0 Total: \$299,967  
 Prin. Invest.: J H BURGE  
 Tech. Officer: MSFC/D H JACOBSON  
 CASE Category: 46 - MECHANICAL ENGR

**NAS 8 97309 UNIVERSITY OF ARIZONA 1610**  
 FABRICATION, TEST, AND DELIVERY OF PRIMARY MIRROR SYSTEM  
 DEMONSTRATOR.  
 07/17/1997 - 06/29/2001 FY00: \$0 Total: \$5,495,191  
 Prin. Invest.: J H BURGE  
 Tech. Officer: MSFC/D JACOBSON  
 CASE Category: 49 - ENGINEERING, OTHER

**NAS 9 97224 UNIVERSITY OF ARIZONA 1611**  
 MARS FLIGHT DEMONSTRATION OXYGEN GENERATORY SUBSYS  
 12/13/1997 - 09/30/2000 FY00: \$175,783 Total: \$1,252,601  
 Prin. Invest.: K R SRIDHAR  
 Tech. Officer: JSC/S BAIRD  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NCC 2 5239 UNIVERSITY OF ARIZONA 1612**  
 DEVELOPMENT OF THE COUPLED LEAFMOD/SART CANOPY- LEVEL  
 RADIATIVE TRANSFER MODEL  
 09/15/1997 - 06/30/2000 FY00: \$0 Total: \$50,000  
 Prin. Invest.: B D GANAPOL  
 Tech. Officer: ARC/D L PETERSON  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NCC 2 5262 UNIVERSITY OF ARIZONA 1613**  
 SOLID STATE PRESSURE SENSORS FOR AEROASSIST TECHN OLOGY  
 APPLICATIONS  
 03/25/1998 - 03/31/1999 FY00: \$0 Total: \$119,898  
 Prin. Invest.: K R SRIDHAR  
 Tech. Officer: ARC/H K TRAN, ARC/D R OLYNICK  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 2 5316 UNIVERSITY OF ARIZONA 1614**  
 TECHNOLOGY DEVELOPMENT FOR ASTROBIOLOGY SAMPLE ACQ UISI-  
 TION, STORAGE & ANALYSIS  
 04/12/1999 - 08/31/2000 FY00: \$15,000 Total: \$74,711  
 Prin. Invest.: K R SRIDHAR  
 Tech. Officer: ARC/M H KAISS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5357 UNIVERSITY OF ARIZONA 1615**  
 ISRU TECHNOLOGIES FOR MARS LIFE SUPPORT  
 09/29/1999 - 09/30/2001 FY00: \$94,488 Total: \$118,760  
 Prin. Invest.: K R SRIDHAR  
 Tech. Officer: ARC/J E FINN  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 2 5375 UNIVERSITY OF ARIZONA 1616**  
 DEVELOPMENT OF A SYSTEM FOR QUANTIFYING IN VIVO BO NE STRAINS  
 IN RODENTS IN NORMAL AND ALTERED GRAVI  
 03/31/2000 - 03/31/2001 FY00: \$10,208 Total: \$10,208  
 Prin. Invest.: J SZIVEK  
 Tech. Officer: ARC/J SCHONFELD/W LIN  
 CASE Category: 56 - MEDICL

**NCC 2 5385 UNIVERSITY OF ARIZONA 1617**  
 SOLID STATE SENSORS FOR AEROASSIST TECHNOLOGY APPEICATIONS  
 06/01/2000 - 11/30/2000 FY00: \$47,500 Total: \$47,500  
 Prin. Invest.: K R SRIDHAR  
 Tech. Officer: ARC/G A RAICHE, ARC/P F WERCINSKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 5 355 UNIVERSITY OF ARIZONA 1618**  
 PROPOSAL FOR GRADUATE STUDENT SUPPORT UNDER CCAST. NOW  
 INCLUDES ADDITIONAL SUPP  
 08/04/1998 - 07/31/2001 FY00: \$135,814 Total: \$395,510  
 Prin. Invest.: B M HERMAN  
 Tech. Officer: GSFC/A J NEGRI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 460 UNIVERSITY OF ARIZONA 1619**  
 RADIOMETRIC CALIBRATION, SPATIAL CHARACTERIZATION, AND SPEC-  
 TRAL EVALUATION OF THE ADVANCED LAND IMAG  
 03/03/2000 - 12/31/2000 FY00: \$184,979 Total: \$184,979  
 Prin. Invest.: S F BIGGARPrin. Invest.: NONE  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 478 UNIVERSITY OF ARIZONA 1620**  
 INTER-SENSOR CALIBRATION OF VEGETATION INDICES FOR MONITORING  
 AND CONTINUITY STUDIES  
 03/22/2000 - 12/31/2000 FY00: \$91,570 Total: \$91,570  
 Prin. Invest.: A R HUETE  
 Tech. Officer: GSFC/S G UNGER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 8 96 UNIVERSITY OF ARIZONA 1621**  
 COMPARISON OF STRUCTURE AND SEGREGATION IN ALLOYS  
 06/07/1996 - 05/31/2001 FY00: \$118,000 Total: \$630,000  
*Prin. Invest.:* D R POIRIER  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 8 160 UNIVERSITY OF ARIZONA 1622**  
 REMOTE SENSING INVESTIGATION OF THE ANCIENT MAYA LANDSCAPE  
 12/08/1998 - 12/07/2001 FY00: \$64,698 Total: \$157,407  
*Prin. Invest.:* T P CULBERT  
*Tech. Officer:* MSFC/T SEVER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 1 52176 UNIVERSITY OF ARIZONA 1623**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 08/25/1997 - 07/31/2001 FY00: \$22,000 Total: \$76,000  
*Prin. Invest.:* J A REAGAN, M A RUBIE  
*Tech. Officer:* LARC/C A HOSTETLER, LARC/D M WINKER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 1 52206 UNIVERSITY OF ARIZONA 1624**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/14/1998 - 07/31/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* H F FASEL, H F FASEL  
*Tech. Officer:* LARC/B A SINGER, LARC/B A SINGER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 2 52268 UNIVERSITY OF ARIZONA 1625**  
 ISRU TECHNOLOGIES FOR HUMAN MARS EXPLORATION  
 08/10/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* K R SRIDHAR  
*Tech. Officer:* ARC/J E FINN, ARC/M H KLISS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 4 52408 UNIVERSITY OF ARIZONA 1626**  
 GSRP INVESTIGATION OF ACTUATORS USED IN ACTIVE FLOW CONTROL  
 06/18/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* H F FASEL, M LINNICK  
*Tech. Officer:* SSC/K GUPTA, SSC/L S VOELKER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 5 110 UNIVERSITY OF ARIZONA 1627**  
 CATASTROPHIC FLOODING ON ICELAND AND MARS STUDENT: DEVON M. BURR  
 06/20/2000 - 12/31/2000 FY00: \$11,000 Total: \$11,000  
*Prin. Invest.:* A S MCEWEN  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NGT 5 111 UNIVERSITY OF ARIZONA 1628**  
 MINIATURE DOPPLER AEROSOL BACKSCATTER LIDAR FOR DETECTION OF ATMOSPHERIC WINDS/STUDENT: JEREMY DOB  
 07/07/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* J A REAGAN  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 13 - PHYSICS

**NGT 5 30013 UNIVERSITY OF ARIZONA 1629**  
 A STUDY OF 1993 USA FLOOD MECHANISM ON REGIONAL AND USING CLIMATE MODELS AND REMOTE-SENSING  
 10/23/1996 - 08/31/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* R E DICKSON  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30051 UNIVERSITY OF ARIZONA 1630**  
 A NEW SPHERICAL-SHELL RADIATIVE TRANSFER MODEL FOR LIMB SCATTERING RADIANCES  
 09/06/1997 - 08/31/1999 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* B M HERMAN  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30140 UNIVERSITY OF ARIZONA 1631**  
 ECOSYSTEM DEGRADATION AND HOUSEHOLD VULNERABILITY IN THE SEMI ARID REGION OF CHILE  
 08/27/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* C HUTCHINSON  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30148 UNIVERSITY OF ARIZONA 1632**  
 SYNTHETIC LAHAR HAZARD MODELING USING ORBITAL DEM DATA/NASA EARTH SCI. SYSTEM PROGRAM/STUDENT: KLI  
 08/28/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* C E GLASS  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40026 UNIVERSITY OF ARIZONA 1633**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 12/30/1996 - 01/31/2001 FY00: \$486,875 Total: \$1,816,873  
*Prin. Invest.:* E H LEVY  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50014 UNIVERSITY OF ARIZONA 1634**  
 LARGE SCALE MHD ACCRETION ONTO MASSIVE BLACK HOLES FOR NUCLEAR BROAD LINE REGIONS  
 07/14/1997 - 01/14/2000 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* F MELIA  
*Tech. Officer:* GSFC/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50046 UNIVERSITY OF ARIZONA 1635**  
 ACHROMATIC NULLING BEAM COMBINER FOR A PLANET  
 07/17/1997 - 12/31/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* M LLOYD-HART  
*Tech. Officer:* GSFC/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50111 UNIVERSITY OF ARIZONA 1636**  
 GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: K  
 09/04/1997 - 08/14/1999 FY00: -\$6,143 Total: \$26,857  
*Prin. Invest.:* J LUNINE  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50132 UNIVERSITY OF ARIZONA 1637**  
 PLANETARY DYNAMOS AND THERMAL EVOLUTION: THE IMPO HEAT  
 PRODUCING ELEMENTS DISSOLVED IN TERRESTRIAL  
 09/10/1997 - 06/30/1999 FY00: -\$302 Total: \$43,698  
*Prin. Invest.:* M J DRAKE  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50190 UNIVERSITY OF ARIZONA 1638**  
 THEORETICAL & OBSERVATIONAL STUDY OF ORIGIN & EVOLUTION OF  
 PLANETS & PLANETARY SYSTEMS  
 06/05/1998 - 08/14/2001 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* R H BROWN  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 11 - ASTRONOMY

**NGT 5 50243 UNIVERSITY OF ARIZONA 1639**  
 PHYSICAL STUDIES OF NEA & TNO OBJECTS USING SPECTR OPHOTO-  
 METRY STUDENT: RONALD FEVIG  
 06/02/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* U FINK  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50246 UNIVERSITY OF ARIZONA 1640**  
 DEVELOPMENT OF LASER MICROMACHINED COMPONENTS FOR SUBMILLI-  
 METER HETERODYNE RECEIVERS (STUDENT CHRIS  
 06/02/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* C WALKER  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50282 UNIVERSITY OF ARIZONA 1641**  
 SUBMILLIMETER LABORATORY AND OBSERVATIONAL STUDIES OF MOLEC-  
 ULAR ION CHEMISTRY IN PHOTON-DOMINATE  
 06/20/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* L ZIURYS  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50283 UNIVERSITY OF ARIZONA 1642**  
 THE EVOLUTION OF GALAXIES IN 0.54  
 06/22/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* D MCCARTHY  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50289 UNIVERSITY OF ARIZONA 1643**  
 THE COLLISIONAL EVOLUTION OF THE ASTEROID BELT: RECONCILING  
 CONTRADICTORY EVIDENCE-STUDENT DOBRIE  
 06/26/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* R GREENBERG  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50300 UNIVERSITY OF ARIZONA 1644**  
 NEUTRINO PROCESSES & R-PROCESS NUCLEOSYNTHESIS IN PROTO-  
 NEUTRON STAR WINDS/ STUDENT: TODD THOMPSON  
 06/28/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* A BURROWS  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50303 UNIVERSITY OF ARIZONA 1645**  
 THE EFFECTS OF MICROGRAVITY ON THE DEVELOPMENT OF THE IMMUNE  
 SYSTEM/STUDENT: CHRIS C. WOODS  
 07/06/2000 - 06/30/2001 FY00: \$20,325 Total: \$20,325  
*Prin. Invest.:* D DELUCA  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

## ARKANSAS

**NAG 8 1284 ARKANSAS TECH UNIVERSITY 1646**  
 FOR RESEARCH "JOVE"  
 01/21/1997 - 09/28/2000 FY00: \$0 Total: \$137,000  
*Prin. Invest.:* M CONNOR, R NELSON, S JORDAN  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG13 98012 HENDRIX COLLEGE 1647**  
 NONINVASIVE DETECTION OF METALLIC IONS IN A HYBRID ROCKET  
 PLUME  
 07/17/1998 - 11/16/1999 FY00: \$0 Total: \$20,000  
*Prin. Invest.:* R W DUNN  
*Tech. Officer:* SSC/B ST. CYR  
*CASE Category:* 13 - PHYSICS

**NAG13 99016 HENDRIX COLLEGE 1648**  
 DETECTION OF SMALL MOLECULES IN HYBRID ROCKET MOTOR COMBUS-  
 TION BY N EAR IR ABSORPTION  
 05/24/1999 - 04/30/2001 FY00: \$0 Total: \$20,000  
*Prin. Invest.:* M W TEAGUE  
*Tech. Officer:* SSC/B ST. CYR  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 9 1061 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1649**  
 EFFECTS OF RESISTANCE TRAINING  
 12/17/1998 - 01/31/2001 FY00: \$256,629 Total: \$532,137  
*Prin. Invest.:* P A TESCH  
*Tech. Officer:* JSC/C SAWIN  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NAG10 181 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1650**  
 SYNTHESIS & CHARACTERIZATION OF CROSS LINKABLE WATER BORNE  
 POLYCONJUGATED SYSTEMS  
 12/12/1995 - 09/30/2000 FY00: \$0 Total: \$244,000  
*Prin. Invest.:* T VISWANATHAN  
*Tech. Officer:* KSC/C BRYAN  
*CASE Category:* 12 - CHEMISTRY

**NAG10 277 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1651**  
 SYNTHESIS AND CHARACTERIZATION OF CROSS-LINKABLE W ATER-  
 BORNE CONDUCTING POLYMERS FOR CORROSION PROT  
 02/07/2000 - 01/18/2001 FY00: \$86,250 Total: \$86,250  
*Prin. Invest.:* T VISWANATHAN  
*Tech. Officer:* KSC/C J BRYAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

## CALIFORNIA

## NASA'S UNIVERSITY PROGRAM

**NCC 5 260 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1652**  
 ARKANSAS EPSCOR PROGRAM - THE ARKANSAS PLAN FOR ENHANCEMENT OF AERO-SPACE RESEARCH AND ECONOMIC  
 01/07/1998 - 07/31/2001 FY00: \$400,000 Total: \$1,800,000  
 Prin. Invest.: M HUDSON  
 Tech. Officer: HQ/D DETROYE  
 CASE Category: 11 - ASTRONOMY

**NCC 5 404 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1653**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/14/1999 - 08/14/2001 FY00: \$225,000 Total: \$450,000  
 Prin. Invest.: K HUDSON  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 2 52242 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1654**  
 VIRTUAL REALITY SIMULATION OF PHYSIOLOGICAL EFFECTS OF MICROGRAVITY  
 07/28/1998 - 07/31/2000 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: C M COMPADRE  
 Tech. Officer: ARC/J D SMITH  
 CASE Category: 56 - MEDICAL

**NGT 5 40063 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1655**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 03/24/1997 - 02/28/2001 FY00: \$256,250 Total: \$973,750  
 Prin. Invest.: G M NORTHROP  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT10 52618 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1656**  
 CAMERA BASED INSTRUMENTATION FOR MONITORING CLEANROOM CONTAMINATION  
 07/14/1998 - 03/01/2000 FY00: -\$12,182 Total: \$31,818  
 Prin. Invest.: A J ADAMS  
 Tech. Officer: KSC/P MOGAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT13 52707 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1657**  
 A STUDY OF THE APPLICATION OF RAMEN SPECTROSCOPY TO ROCKET DIAGNOSTICS  
 05/23/1996 - 03/30/2000 FY00: -\$168 Total: \$65,832  
 Prin. Invest.: M K HUDSON  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT13 52718 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1658**  
 DESIGN OF HIGH TEMPERATURE PROBE FOR MASS SPECTROSCOPY OF HYBRID ROCKET PLUME  
 07/13/1998 - 07/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: C MEADORS  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT13 52724 UNIVERSITY OF ARKANSAS - LITTLE ROCK 1659**  
 INVESTIGATION OF METALLIC MOLECULAR BANDS IN HYBRID ROCKET PLUMES  
 12/01/1999 - 07/31/2000 FY00: \$11,000 Total: \$11,000  
 Prin. Invest.: K MAXWELL  
 Tech. Officer: SSC/R TRAVIS  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 5 4317 UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1660**  
 NATURAL THERMOLUMINESCENCE OF ANTARCTIC METEORITES  
 04/09/1997 - 02/28/2001 FY00: \$0 Total: \$150,000  
 Prin. Invest.: D H BENOIT  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4718 UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1661**  
 DELIVERING GEOGRAPHIC DECISION SUPPORT TECHNOLOGY ON-LINE ACCESSTO DIGITAL GEODATA PRODUCTS  
 09/05/1997 - 09/30/1999 FY00: \$0 Total: \$250,000  
 Prin. Invest.: W LIMP  
 Tech. Officer: GSFC/A TUYAHOV  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9496 UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1662**  
 THERMOLUMINESCENCE STUDIES OF METEORITES  
 04/21/2000 - 04/30/2001 FY00: \$43,000 Total: \$43,000  
 Prin. Invest.: P BENOIT  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 5360 UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1663**  
 GROWTH OF METHANOGENS ON CARBON MONOXIDE  
 12/10/1999 - 12/30/2000 FY00: \$15,000 Total: \$15,000  
 Prin. Invest.: T KRAL  
 Tech. Officer: ARC/M J LEON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 2 52243 UNIV OF ARKANSAS MAIN CAMP - FAYETTEVILLE 1664**  
 METHANOGENIC METABOLISM: IMPLICATIONS FOR MARS & EARLY EARTH  
 07/28/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: T A KRAL  
 Tech. Officer: ARC/C P MCKAY  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

## CALIFORNIA

**NAG 1 1780 CALIFORNIA INSTITUTE OF TECHNOLOGY 1665**  
 NEW NASA RESEARCH GRANT  
 12/05/1995 - 12/04/1998 FY00: -\$1 Total: \$82,957  
 Prin. Invest.: W G KNAUSS  
 Tech. Officer: LARC/T S GATES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1806 CALIFORNIA INSTITUTE OF TECHNOLOGY 1666**  
 CHEMISTRY AND TRANSPORT IN A MULTI-DIMENSIONAL MODEL  
 02/07/1996 - 12/31/1998 FY00: -\$1 Total: \$340,000  
 Prin. Invest.: Y L YUNG  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1975 CALIFORNIA INSTITUTE OF TECHNOLOGY 1667**  
 GLOBAL FAILURE MODES IN HIGH TEMPERATURE COMPOSITE STRUCTURES  
 11/25/1997 - 11/14/2000 FY00: \$63,708 Total: \$190,188  
 Prin. Invest.: W G KNAUSS  
 Tech. Officer: GSFC/J H STARNES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2151 CALIFORNIA INSTITUTE OF TECHNOLOGY 1668**  
 CHEMISTRY AND TRANSPORT IN A MULTI-DIMENSIONAL MODEL  
 02/23/1999 - 12/31/2001 FY00: \$118,159 Total: \$234,780  
 Prin. Invest.: Y L YUNG  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1087 CALIFORNIA INSTITUTE OF TECHNOLOGY 1669**  
 APPLICATION OF DIGITAL PARTICLE IMAGE VELOCIMETRY & THERMOMETRY TO TURBULENT CAVITY FLOW  
 09/27/1996 - 05/31/1999 FY00: \$0 Total: \$65,000  
 Prin. Invest.: M GHARIB  
 Tech. Officer: ARC/Y C CHO  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1131 CALIFORNIA INSTITUTE OF TECHNOLOGY 1670**  
 AUTOMISTIC DESIGN & SIMULATIONS OF NANOSCALE MACHINES & ASSEMBLY  
 06/11/1997 - 04/30/2000 FY00: \$0 Total: \$246,884  
 Prin. Invest.: W A GODDARD  
 Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1316 CALIFORNIA INSTITUTE OF TECHNOLOGY 1671**  
 RASCAL CONTROL LAW DESIGN USING CONDUIT  
 04/02/1999 - 03/31/2001 FY00: \$0 Total: \$9,999  
 Prin. Invest.: D J BIEZAD  
 Tech. Officer: ARC/M B TISCHLER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1346 CALIFORNIA INSTITUTE OF TECHNOLOGY 1672**  
 EVOLUTION OF NEURAL CREST & PLACODES  
 07/21/1999 - 07/14/2000 FY00: \$148,445 Total: \$219,096  
 Prin. Invest.: M BRONNER-FRASER  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1368 CALIFORNIA INSTITUTE OF TECHNOLOGY 1673**  
 TRANSCRIPTIONAL REGULATION & EVOLUTION OF BILATERAL BODY PLANS  
 08/05/1999 - 07/31/2001 FY00: \$352,690 Total: \$461,381  
 Prin. Invest.: E M DAVIDSON  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1370 CALIFORNIA INSTITUTE OF TECHNOLOGY 1674**  
 TRANSCRIPTION FACTOR EVOLUTION & LYMPHOCYTE ORIGIN S  
 08/05/1999 - 01/31/2001 FY00: \$129,842 Total: \$192,943  
 Prin. Invest.: E V ROTHENBERG  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1899 CALIFORNIA INSTITUTE OF TECHNOLOGY 1675**  
 PRECISE MEASUREMENTS OF THE DENSITY AND CRITICAL PHENOMENA OF HELIUM NEAR PHASE TRANSITIONS  
 06/13/1996 - 06/12/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: N YEH  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 2166 CALIFORNIA INSTITUTE OF TECHNOLOGY 1676**  
 INERTIAL EFFECTS IN SUSPENSION DYNAMICS  
 05/08/1998 - 02/10/2002 FY00: \$100,000 Total: \$275,000  
 Prin. Invest.: J F BRADY  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2358 CALIFORNIA INSTITUTE OF TECHNOLOGY 1677**  
 GRANULAR MATERIAL FLOWS WITH INTERSTITIAL FLUID EFFECTS  
 03/12/2000 - 11/30/2003 FY00: \$50,097 Total: \$50,097  
 Prin. Invest.: M L HUNT  
 Tech. Officer: GRC/J H AGUI  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 1611 CALIFORNIA INSTITUTE OF TECHNOLOGY 1678**  
 EXTENSION OF THE WIDE FIELD PLANETARY CAMERA POST-LAUNCH SCIENCE AND ENGINEERING ACTIVITIES  
 05/23/1991 - 09/30/1999 FY00: -\$2,063 Total: \$12,645,417  
 Prin. Invest.: J A WESTPHAL  
 Tech. Officer: GSFC/S SOBIESKI  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2782 CALIFORNIA INSTITUTE OF TECHNOLOGY 1679**  
 VARIABILITY OF SOLAR UV IRRADIANCE RELATED TO BRIG HT MAGNETIC FEATURES OBSERVED IN CALL K-LINE  
 11/07/1994 - 09/30/1999 FY00: \$0 Total: \$236,199  
 Prin. Invest.: H ZIRIN  
 Tech. Officer: GSFC/C H JACKMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 3239 CALIFORNIA INSTITUTE OF TECHNOLOGY 1680**  
 STUDIES OF PERIODIC AND APERIODIC VARIABILITY IN A ACCRETING NEUTRON STAR BINARY SYSTEMS  
 05/21/1996 - 04/30/2001 FY00: \$0 Total: \$440,000  
 Prin. Invest.: T A PRINCE  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3299 CALIFORNIA INSTITUTE OF TECHNOLOGY 1681**  
 OBSERVATION OF RADIO-LOUD BL LACERTAE OBJECTS AND SUPERLUMINAL AGN; 2) CORRELATED OBSERVATIONS OF ..  
 08/09/1996 - 05/14/1999 FY00: -\$94 Total: \$11,906  
 Prin. Invest.: R C LAMB  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3466 CALIFORNIA INSTITUTE OF TECHNOLOGY 1682**  
 INNOVATIVE RESEARCH PROGRAM. SILICON RADIATION DET  
 01/31/1997 - 07/31/2000 FY00: \$0 Total: \$265,049  
 Prin. Invest.: R A MEWALDT  
 Tech. Officer: GSFC/D HOLLAND  
 CASE Category: 12 - CHEMISTRY

**NAG 5 3560 CALIFORNIA INSTITUTE OF TECHNOLOGY 1683**  
 ISO BLOCK GRANT SUPPORT  
 01/15/1997 - 12/31/1999 FY00: \$0 Total: \$514,487  
 Prin. Invest.: B T SOIFER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3644 CALIFORNIA INSTITUTE OF TECHNOLOGY 1684**  
 IMPACT AND COLLISIONAL PROCESSES IN THE SOLAR SYST  
 02/12/1997 - 03/31/2000 FY00: \$0 Total: \$622,000  
 Prin. Invest.: T J AHRENS  
 Tech. Officer: GSFC/J G GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3765 CALIFORNIA INSTITUTE OF TECHNOLOGY 1685**  
 PLANETARY ORIGIN, EVOLUTION AND STRUCTURE  
 02/11/1997 - 04/30/2001 FY00: \$84,550 Total: \$349,514  
 Prin. Invest.: D J STEVENSON  
 Tech. Officer: GSFC/P G RODGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3792 CALIFORNIA INSTITUTE OF TECHNOLOGY 1686**  
 RADAR AND MICROWAVE ASTRONOMY  
 03/12/1997 - 11/30/2000 FY00: \$0 Total: \$155,183  
 Prin. Invest.: D O MUHLEMAN  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3911 CALIFORNIA INSTITUTE OF TECHNOLOGY 1687**  
 MOLECULAR BEAM STUDIES OF STRATOSPHERIC PHOTOCHEMI  
 02/26/1997 - 12/31/2000 FY00: \$69,562 Total: \$191,338  
 Prin. Invest.: D OKUMURA  
 Tech. Officer: GSFC/M J KURYLO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4022 CALIFORNIA INSTITUTE OF TECHNOLOGY 1688**  
 PALEOENVIRONMENT ON MARS  
 03/25/1997 - 09/30/1999 FY00: \$0 Total: \$90,000  
 Prin. Invest.: D YUNG  
 Tech. Officer: GSFC/M A MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4076 CALIFORNIA INSTITUTE OF TECHNOLOGY 1689**  
 GEOCHEMICAL AND ISOTOPIC INVESTIGATIONS OF LUNAR A  
 03/26/1997 - 11/14/1999 FY00: \$0 Total: \$1,606,000  
 Prin. Invest.: D J WASSERBURG  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 12 - CHEMISTRY

**NAG 5 4079 CALIFORNIA INSTITUTE OF TECHNOLOGY 1690**  
 WIDE-FIELD IMAGING OF GALACTIC HALOS WITH A NEAR-IR TELESCOPE  
 05/06/1997 - 09/30/1999 FY00: \$0 Total: \$453,260  
 Prin. Invest.: P E LANGE  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4081 CALIFORNIA INSTITUTE OF TECHNOLOGY 1691**  
 BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE BACKGROUND  
 ON ANGULAR SCALES OF 0.2 TO 40 DEGREES  
 05/06/1997 - 12/31/1999 FY00: \$0 Total: \$465,540  
 Prin. Invest.: P E LANGE  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4083 CALIFORNIA INSTITUTE OF TECHNOLOGY 1692**  
 DEVELOPMENT AND APPLICATION OF THE ION MICROPROBE FOR TERRESTRIAL  
 MATERIALS  
 03/10/1997 - 01/31/2001 FY00: \$147,000 Total: \$1,037,000  
 Prin. Invest.: D J WASSERBURG  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 12 - CHEMISTRY

**NAG 5 4093 CALIFORNIA INSTITUTE OF TECHNOLOGY 1693**  
 RESEARCH IN GRAVITATION ASTROPHYSICS  
 03/10/1997 - 12/31/2000 FY00: \$40,500 Total: \$139,500  
 Prin. Invest.: P LINDBLOM  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4097 CALIFORNIA INSTITUTE OF TECHNOLOGY 1694**  
 NOVEL, COMPACT UV/VIS & VUV COHERENT LIGHT SOURCES SPECTROSCOPY  
 OF POTENTIAL DIB CARRIERS  
 03/10/1997 - 03/14/2000 FY00: -\$9,785 Total: \$215,215  
 Prin. Invest.: P A BLAKE Prin. Invest.: NONE  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4191 CALIFORNIA INSTITUTE OF TECHNOLOGY 1695**  
 DYNAMICS OF PLANETARY ATMOSPHERES  
 06/27/1997 - 11/30/2000 FY00: \$61,230 Total: \$306,230  
 Prin. Invest.: D P INGERSOLL  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4196 CALIFORNIA INSTITUTE OF TECHNOLOGY 1696**  
 DEVELOPMENT OF A SUBMILLIMETER-WAVELENGTH IMMERSSION  
 03/17/1997 - 02/29/2000 FY00: \$0 Total: \$174,483  
 Prin. Invest.: D SERABYN  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4203 CALIFORNIA INSTITUTE OF TECHNOLOGY 1697**  
 A DISTRIBUTED OUT-OF-CORE TOOL FOR SPATIAL AND TEM HALOS FROM  
 COSMOLOGICAL N-BODY SIMULATION DATA  
 03/17/1997 - 02/29/2000 FY00: \$0 Total: \$250,000  
 Prin. Invest.: D L STERLING  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 4206 CALIFORNIA INSTITUTE OF TECHNOLOGY 1698**  
 IMPACT CRATERING CALCULATIONS  
 03/15/1997 - 03/31/2000 FY00: \$0 Total: \$224,000  
 Prin. Invest.: T J AHRENS  
 Tech. Officer: GSFC/J G GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4307 CALIFORNIA INSTITUTE OF TECHNOLOGY 1699**  
 EXPERIMENTAL AND MODELING STUDIES OF THE CHEMISTRY  
 04/01/1997 - 09/30/1999 FY00: -\$1,012 Total: \$48,988  
 Prin. Invest.: D S BURNETT  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY



**NAG 5 4318 CALIFORNIA INSTITUTE OF TECHNOLOGY 1700**  
 EXPERIMENTAL STUDIES OF PHASE EQUILIBRIA OF METEOR INTERIORS  
 04/04/1997 - 02/28/2001 FY00: \$147,000 Total: \$588,000  
 Prin. Invest.: D M STOLPER  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4319 CALIFORNIA INSTITUTE OF TECHNOLOGY 1701**  
 EXPERIMENTAL AND ANALYTICAL STUDIES OF SOLAR SYSTE  
 04/04/1997 - 01/31/2001 FY00: \$119,000 Total: \$469,000  
 Prin. Invest.: D S BURNETT  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4347 CALIFORNIA INSTITUTE OF TECHNOLOGY 1702**  
 MICRO-PENETRATOR SEARCH FOR LAKE DEPOSITED MINERAL  
 04/14/1997 - 03/31/1999 FY00: \$0 Total: \$20,000  
 Prin. Invest.: D C MURRAY  
 Tech. Officer: GSFC/J M BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4383 CALIFORNIA INSTITUTE OF TECHNOLOGY 1703**  
 A LABORATORY AND OBSERVATIONAL STUDY OF THE CHEMIC STELLAR  
 NEBULAE  
 05/06/1997 - 02/28/2000 FY00: \$0 Total: \$120,000  
 Prin. Invest.: P A BLAKE  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4437 CALIFORNIA INSTITUTE OF TECHNOLOGY 1704**  
 PARTICIPATION OF D.O. MUHLEMAN AS A CO-INVESTIGATO OBSERVER  
 LASER ALTIMETER (MOLA) TEAM  
 04/28/1997 - 12/31/2000 FY00: \$80,330 Total: \$334,104  
 Prin. Invest.: D O MUHLEMAN  
 Tech. Officer: GSFC/D E SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4599 CALIFORNIA INSTITUTE OF TECHNOLOGY 1705**  
 MILLIMETER INTERFEROMETRY OF PROTO-PLANETARY DISKS  
 06/06/1997 - 12/31/2000 FY00: \$0 Total: \$305,914  
 Prin. Invest.: D I SARGENT  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4614 CALIFORNIA INSTITUTE OF TECHNOLOGY 1706**  
 ANALYSIS OF SYNTHETIC APERTURE RADAR IMAGES OF MA  
 05/19/1997 - 02/28/1999 FY00: \$0 Total: \$52,979  
 Prin. Invest.: D O MUHLEMAN  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4692 CALIFORNIA INSTITUTE OF TECHNOLOGY 1707**  
 LABORATORY STUDIES OF THE PHOTOPHYSICS AND PHOTOCHEMIS AND  
 PAH CATIONS  
 06/20/1997 - 12/31/1999 FY00: \$57,000 Total: \$114,000  
 Prin. Invest.: P A BLAKE  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4890 CALIFORNIA INSTITUTE OF TECHNOLOGY 1708**  
 QUASI-OPTICAL SIS MIXER DEVELOPMENT  
 07/08/1997 - 06/30/2000 FY00: \$100,000 Total: \$465,266  
 Prin. Invest.: D S ZMUIDZINAS  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5052 CALIFORNIA INSTITUTE OF TECHNOLOGY 1709**  
 GLOBAL MAPPING OF THE INTERSTELLAR MEDIUM IN THE FAR-UL-  
 TRAVIOLET  
 01/24/1996 - 12/31/2000 FY00: -\$114,176 Total: \$1,281,913  
 Prin. Invest.: C MARTIN  
 Tech. Officer: GSFC/R H PLESS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5067 CALIFORNIA INSTITUTE OF TECHNOLOGY 1710**  
 PROGRAM TO STUDY BE-10 AND OTHER LIGHT ISOTOPES IN THE COSMIC  
 RADIATION  
 05/03/1996 - 05/31/2000 FY00: \$0 Total: \$1,127,462  
 Prin. Invest.: R A MEWALDT, E C STONE  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5128 CALIFORNIA INSTITUTE OF TECHNOLOGY 1711**  
 HIGH ENERGY FOCUSING TELESCOPE (HEFT)  
 06/19/1997 - 06/22/2000 FY00: \$0 Total: \$1,344,700  
 Prin. Invest.: J GRINDLEY  
 Tech. Officer: GSFC/H NEEDLEMAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5166 CALIFORNIA INSTITUTE OF TECHNOLOGY 1712**  
 INTEGRATED-CIRCUIT READOUT FOR THE ACCESS SILICON ARRAY  
 03/26/1998 - 12/31/2000 FY00: \$22,800 Total: \$92,620  
 Prin. Invest.: R A MEWALDT  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5203 CALIFORNIA INSTITUTE OF TECHNOLOGY 1713**  
 ULTRA HEAVY AND HEAVY COSMIC-RAY MEASUREMENTS ON ACCESS  
 08/29/1998 - 02/28/2001 FY00: \$31,000 Total: \$119,067  
 Prin. Invest.: R A MEWALDT  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 5207 CALIFORNIA INSTITUTE OF TECHNOLOGY 1714**  
 TWO-DIMENSIONAL HILBERT-HUANG TRANSFORM METHOD FOR DATA  
 ANALYSIS  
 08/27/1998 - 09/30/2001 FY00: \$0 Total: \$96,988  
 Prin. Invest.: T Y WU  
 Tech. Officer: GSFC/S R LONG, GSFC/N E HUANG  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 5216 CALIFORNIA INSTITUTE OF TECHNOLOGY 1715**  
 A PROPOSAL FOR CONVERSION OF THE TRANS-IRON GALACTIC  
 ELEMENT RECORDER (TIGER) PI STONE  
 12/01/1998 - 11/30/2001 FY00: \$0 Total: \$76,156  
 Prin. Invest.: E C STONE  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5227 CALIFORNIA INSTITUTE OF TECHNOLOGY 1716**  
 FIRST INCREMENTAL FUNDING FOR NAG5-5227 PI DR. EDWARD C. STONE  
 03/29/1999 - 03/25/2002 FY00: \$196,200 Total: \$392,200  
*Prin. Invest.:* E C STONE  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5228 CALIFORNIA INSTITUTE OF TECHNOLOGY 1717**  
 FIRST YEAR FUNDING FOR NAG5-5228 PI DR. EDWARD C STONE  
 03/29/1999 - 03/25/2002 FY00: \$69,700 Total: \$143,632  
*Prin. Invest.:* E C STONE  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5286 CALIFORNIA INSTITUTE OF TECHNOLOGY 1718**  
 HIGH SPECTRAL & SPATIAL RESOLUTION GE DETECTOR & READOUT  
 TECHNOLOGIES FOR NUCLEAR SPECTROSCOPIC IMG  
 05/31/2000 - 05/17/2002 FY00: \$44,000 Total: \$44,000  
*Prin. Invest.:* S BOGGS  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 5289 CALIFORNIA INSTITUTE OF TECHNOLOGY 1719**  
 HIGH ENERGY FOCUSING TELESCOPE HIGH ENERGY FOCUSING TELE-  
 SCOPE  
 06/02/2000 - 05/25/2003 FY00: \$680,000 Total: \$680,000  
*Prin. Invest.:* F HARRISON  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6173 CALIFORNIA INSTITUTE OF TECHNOLOGY 1720**  
 PRECISION SOLAR DISK PHOTOMETRY -- A TOOL FOR UNDE HE SUN'S  
 LUMINOSITY  
 08/26/1997 - 05/31/2000 FY00: \$26,505 Total: \$134,912  
*Prin. Invest.:* D G LIBBRECHT  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6225 CALIFORNIA INSTITUTE OF TECHNOLOGY 1721**  
 PALEOMAGNETIC AND ROCK CONSTRAINTS ON THE THERMAL  
 METEORITE ALH84001  
 08/25/1997 - 07/31/2000 FY00: \$0 Total: \$120,000  
*Prin. Invest.:* J L KIRSCHVINK  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6263 CALIFORNIA INSTITUTE OF TECHNOLOGY 1722**  
 PHOTOCHEMICAL STUDIES OF CHEMISTRY IN OUTER SOLAR  
 08/21/1997 - 12/31/2000 FY00: \$82,000 Total: \$319,012  
*Prin. Invest.:* D L YUNG  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 6402 CALIFORNIA INSTITUTE OF TECHNOLOGY 1723**  
 SHE ORIGIN AND EVOLUTION OF NEUTRON STARS\_(LTSA)  
 10/15/1997 - 10/31/2000 FY00: \$106,000 Total: \$309,000  
*Prin. Invest.:* S KULKARNI  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6573 CALIFORNIA INSTITUTE OF TECHNOLOGY 1724**  
 US PARTICIPATION IN PLANCK, HFI PORTION  
 11/18/1997 - 07/31/2001 FY00: \$0 Total: \$1,379,000  
*Prin. Invest.:* D E LANGE  
*Tech. Officer:* GSFC/H THRONSON  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6816 CALIFORNIA INSTITUTE OF TECHNOLOGY 1725**  
 SUBMILLIMETER WAVELENGTH SPECTROSCOPY AND IMAGING OF THE  
 PLANETS  
 01/07/1998 - 02/28/2001 FY00: \$43,681 Total: \$137,405  
*Prin. Invest.:* E SERABYN  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6840 CALIFORNIA INSTITUTE OF TECHNOLOGY 1726**  
 LOW-FREQUENCY GRAVITATIONAL-WAVE SOURCES AND THEIR IMPLICA-  
 TIONS FOR FUTURE NASA MISSIONS  
 01/09/1998 - 12/31/2000 FY00: \$64,000 Total: \$200,000  
*Prin. Invest.:* K THORNE  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6912 CALIFORNIA INSTITUTE OF TECHNOLOGY 1727**  
 MO&DA OF THE ADVANCED COMPOSITION EXPLORER MISSION  
 01/30/1998 - 01/31/2001 FY00: \$3,500,000 Total: \$12,326,415  
*Prin. Invest.:* E STONE  
*Tech. Officer:* GSFC/B WORRALL  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6941 CALIFORNIA INSTITUTE OF TECHNOLOGY 1728**  
 THE ACCRETION HISTORY OF EXTRATERRESTRIAL MATTER O VER  
 GEOLOGIC TIME FROM THE SEAFLOOR SEDIMENTS  
 02/06/1998 - 03/31/2001 FY00: \$41,895 Total: \$130,138  
*Prin. Invest.:* K A FARLEY  
*Tech. Officer:* GSFC/P ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 6955 CALIFORNIA INSTITUTE OF TECHNOLOGY 1729**  
 ASCA PROPOSAL - OBSERVATIONS OF THE CRAB-LIKE PLER ION G  
 54.1+0.3  
 02/06/1998 - 01/31/1999 FY00: -\$14,176 Total: \$2,024  
*Prin. Invest.:* S R KULKARNI  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6981 CALIFORNIA INSTITUTE OF TECHNOLOGY 1730**  
 BROWN DWARFS: DETECTION AND DETAILED STUDIES  
 02/06/1998 - 02/14/2001 FY00: \$55,000 Total: \$181,000  
*Prin. Invest.:* S KULKARNI  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7007 CALIFORNIA INSTITUTE OF TECHNOLOGY 1731**  
 BLACK HOLE ASTROPHYSICS - ATP  
 02/11/1998 - 02/14/2001 FY00: \$83,396 Total: \$257,591  
*Prin. Invest.:* R BLANDFORD  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7008 CALIFORNIA INSTITUTE OF TECHNOLOGY 1732**  
SPECTRAL ENERGY DISTRIBUTION OF T TAURI DISKS - AT P  
02/18/1998 - 08/31/2000 FY00: \$0 Total: \$87,145  
Prin. Invest.: P M GOLDBREICH  
Tech. Officer: GSFC/D K WEST  
CASE Category: 11 - ASTRONOMY

**NAG 5 7034 CALIFORNIA INSTITUTE OF TECHNOLOGY 1733**  
ORIGIN AND EVOLUTION OF THE SPINS AND FIELDS OF WHITE DWARFS,  
NEUTRON STARS AND BLACK HOLES - ATP  
02/18/1998 - 02/14/2001 FY00: \$163,603 Total: \$243,017  
Prin. Invest.: E PHINNEY  
Tech. Officer: GSFC/D K WEST  
CASE Category: 11 - ASTRONOMY

**NAG 5 7081 CALIFORNIA INSTITUTE OF TECHNOLOGY 1734**  
ADVANCED SPACE PARTICLE ANALYSIS SYSTEM  
03/10/1998 - 03/31/2000 FY00: \$127,104 Total: \$254,511  
Prin. Invest.: J BEAUCHAMP  
Tech. Officer: GSFC/B CAMPBELL  
CASE Category: 11 - ASTRONOMY

**NAG 5 7166 CALIFORNIA INSTITUTE OF TECHNOLOGY 1735**  
HIGHER FLUX FROM THE YOUNG SUN AS AN EXPLANATION FOR WARM  
TEMPERATURES FOR EARLY EARTH AND MARS  
03/16/1998 - 04/14/2001 FY00: \$79,831 Total: \$199,185  
Prin. Invest.: I SACKMANN  
Tech. Officer: GSFC/W WAGNER  
CASE Category: 11 - ASTRONOMY

**NAG 5 7229 CALIFORNIA INSTITUTE OF TECHNOLOGY 1736**  
XTE PROPOSAL - TORQUE-LUMINOSITY STUDIES OF THE AC CRETING  
PULSAR CEN X-3  
04/14/1998 - 04/14/1999 FY00: -\$3,300 Total: \$0  
Prin. Invest.: T A PRINCE  
Tech. Officer: GSFC/J SWANK  
CASE Category: 11 - ASTRONOMY

**NAG 5 7230 CALIFORNIA INSTITUTE OF TECHNOLOGY 1737**  
STUDY OF TROPOSPHERIC OZONE AND UV REFLECTIVITY USING TOMS  
DATA  
04/16/1998 - 12/31/2000 FY00: \$70,000 Total: \$207,233  
Prin. Invest.: Y L YUNG  
Tech. Officer: GSFC/E HILSEN RATH  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7501 CALIFORNIA INSTITUTE OF TECHNOLOGY 1738**  
THE STELLAR POPULATIONS EMERGING FROM MOLECULAR CLOUDS AND  
THE SURVIVAL TIMES OF PROTOPLANETS  
06/02/1998 - 05/31/2000 FY00: \$0 Total: \$31,100  
Prin. Invest.: D HILLENBRAND  
Tech. Officer: HQ/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 7527 CALIFORNIA INSTITUTE OF TECHNOLOGY 1739**  
DEVELOPMENT OF AN AIRCRAFT-BORNE INSTRUMENT FOR MEASUREMENT  
OF NITRIC ACID  
06/09/1998 - 12/31/2000 FY00: \$0 Total: \$557,538  
Prin. Invest.: P WENNERBERG  
Tech. Officer: GSFC/P DECOLA  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7680 CALIFORNIA INSTITUTE OF TECHNOLOGY 1740**  
VARIABILITY OF CLOUDS OVER A SOLAR CYCLE YEAR 1 OF A 3 YEAR  
GRANT  
09/17/1998 - 09/30/2001 FY00: \$83,127 Total: \$242,005  
Prin. Invest.: Y L YUNG  
Tech. Officer: GSFC/M CHOU  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8049 CALIFORNIA INSTITUTE OF TECHNOLOGY 1741**  
ATMOSPHERIC DYNAMICS AND AURORAL PHENOMENA DERIVED FROM  
GALILEO IMAGES  
01/15/1999 - 01/14/2001 FY00: \$64,118 Total: \$126,368  
Prin. Invest.: D P INGERSOLL  
Tech. Officer: GSFC/R BEEBE  
CASE Category: 11 - ASTRONOMY

**NAG 5 8110 CALIFORNIA INSTITUTE OF TECHNOLOGY 1742**  
RXTE SEARCH FOR LONG-LIVED AFTERFLOWS FROM GAMMA RAY  
BURSTS  
02/11/1999 - 02/14/2000 FY00: \$0 Total: \$5,000  
Prin. Invest.: S R KULKARNI  
Tech. Officer: GSFC/J SWANK  
CASE Category: 11 - ASTRONOMY

**NAG 5 8124 CALIFORNIA INSTITUTE OF TECHNOLOGY 1743**  
EXPLORING THE GAMMA-RAY SKY ABOVE 1 GEV  
01/29/1999 - 01/31/2000 FY00: \$0 Total: \$3,067  
Prin. Invest.: R C LAMB  
Tech. Officer: GSFC/J P NORRIS  
CASE Category: 11 - ASTRONOMY

**NAG 5 8217 CALIFORNIA INSTITUTE OF TECHNOLOGY 1744**  
STAR FORMATION IN GIANT MOLECULAR CLOUDS - LTSA98  
02/08/1999 - 02/14/2001 FY00: \$50,928 Total: \$102,134  
Prin. Invest.: J M CARPENTER  
Tech. Officer: GSFC/D K WEST  
CASE Category: 11 - ASTRONOMY

**NAG 5 8251 CALIFORNIA INSTITUTE OF TECHNOLOGY 1745**  
GEOCHEMICAL AND ISOTOPIC INVESTIGATIONS OF LUNAR & PLANETARY  
MATERIALS  
02/10/1999 - 02/14/2001 FY00: \$340,000 Total: \$685,000  
Prin. Invest.: D A PAPANASTASSIOU  
Tech. Officer: GSFC/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 8318 CALIFORNIA INSTITUTE OF TECHNOLOGY 1746**  
MILLISECOND PULSARS AND PLANETARY SYSTEMS  
03/30/1999 - 09/30/2000 FY00: \$45,000 Total: \$95,000  
Prin. Invest.: S R KULKARNI  
Tech. Officer: GSFC/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 8463 CALIFORNIA INSTITUTE OF TECHNOLOGY 1747**  
LONG TERM MONITORING OF THE IO PLASMA TORUS DURING THE  
GALILEO ENCOUNTER PERIOD  
04/19/1999 - 11/30/2000 FY00: \$0 Total: \$80,000  
Prin. Invest.: M E BROWN  
Tech. Officer: GSFC/D VEANS  
CASE Category: 11 - ASTRONOMY

**NAG 5 8535 CALIFORNIA INSTITUTE OF TECHNOLOGY 1748**  
 HIGH RESOLUTION, HIGH ENERGY FOCUSING OPTICS FOR THE NEXT  
 GENERATION GAMMA RAY EXPLORER.  
 07/08/1999 - 07/14/2001 FY00: \$270,812 Total: \$541,664  
 Prin. Invest.: F A HARRISON  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 13 - PHYSICS

**NAG 5 8576 CALIFORNIA INSTITUTE OF TECHNOLOGY 1749**  
 NEW GRANT: YEAR 1 OF 2 FOR "A BEOWULF SYSTEM SOFTWARE  
 INITIATIVE"  
 05/27/1999 - 05/31/2001 FY00: \$75,000 Total: \$149,988  
 Prin. Invest.: T STERLING  
 Tech. Officer: GSFC/J FISCHER  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 8743 CALIFORNIA INSTITUTE OF TECHNOLOGY 1750**  
 VERY HIGH SPECTRAL & SPATIAL RESOLUTION GE DETEC TORS &  
 READOUT ELECTRONICS FOR HARD X-RAY ASTRONOMY  
 08/20/1999 - 08/31/2001 FY00: \$99,359 Total: \$221,519  
 Prin. Invest.: S BOGGS  
 Tech. Officer: GSFC/F A HERRERO  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8822 CALIFORNIA INSTITUTE OF TECHNOLOGY 1751**  
 SPECTROSCOPIC STUDIES OF PRE-BIOTIC CARBON CHEMISTRY  
 09/08/1999 - 08/31/2001 FY00: \$56,520 Total: \$106,520  
 Prin. Invest.: G BLAKE  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 8907 CALIFORNIA INSTITUTE OF TECHNOLOGY 1752**  
 IMPACT & COLLISIONAL PROCESSES IN THE SOLAR SYSTEM  
 12/29/1999 - 09/30/2000 FY00: \$152,000 Total: \$152,000  
 Prin. Invest.: T J AHRENS  
 Tech. Officer: GSFC/J A GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8915 CALIFORNIA INSTITUTE OF TECHNOLOGY 1753**  
 IMPACT CRATERING CALCULATIONS  
 01/05/2000 - 09/30/2000 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: T AHRENS  
 Tech. Officer: GSFC/J A GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8922 CALIFORNIA INSTITUTE OF TECHNOLOGY 1754**  
 PARTICIPATION OF THE NITRIC ACID CIMS INSTRUMENT IN THE SAGE III  
 OZONE LOSS & VALIDATION EXPERIMENT  
 01/06/2000 - 12/31/2000 FY00: \$229,500 Total: \$229,500  
 Prin. Invest.: P WENNBERG  
 Tech. Officer: GSFC/P DECOLA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9307 CALIFORNIA INSTITUTE OF TECHNOLOGY 1755**  
 CLOSEOUT OF "LABORATORY STUDIES OF THE PHOTOCHEMISTRY OF  
 PEROXYNITRIC ACID" ASSET FORTH IN THE ATT  
 03/22/2000 - 03/31/2001 FY00: \$70,044 Total: \$70,044  
 Prin. Invest.: D O WENNBERG  
 Tech. Officer: GSFC/R LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9344 CALIFORNIA INSTITUTE OF TECHNOLOGY 1756**  
 BALLOON-BORNE OBSERVATIONS OF THE POLARIZATION OF THE COSMIC  
 MICROWAVE BACKGROUND  
 03/27/2000 - 03/31/2003 FY00: \$142,570 Total: \$142,570  
 Prin. Invest.: A LANGE  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9434 CALIFORNIA INSTITUTE OF TECHNOLOGY 1757**  
 THE PHYSICAL & CHEMICAL STRUCTURE OF CIRCUMSTELLAR DISKS &  
 ENVELOPES  
 04/24/2000 - 04/14/2001 FY00: \$35,000 Total: \$35,000  
 Prin. Invest.: G A BLAKE  
 Tech. Officer: GSFC/J BOYCE/SR  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9462 CALIFORNIA INSTITUTE OF TECHNOLOGY 1758**  
 USE OF SATELLITE FIRE PRODUCTS AND MODELS TO INVESTIGATE THE  
 EFFECTS OF FIRE ON THE GLOBAL CARBON CYCLE  
 04/18/2000 - 04/30/2003 FY00: \$123,547 Total: \$123,547  
 Prin. Invest.: J RANDERSON  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9471 CALIFORNIA INSTITUTE OF TECHNOLOGY 1759**  
 ATMOSPHERIC TRACE GAS ABUNDANCES & STABLE ISOTOPE RATIOS VIA  
 INFRARED LASER INDUCED FLUORESCENCE (IR)  
 04/14/2000 - 04/30/2001 FY00: \$156,843 Total: \$156,843  
 Prin. Invest.: G BLAKE  
 Tech. Officer: GSFC/B BETTS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9482 CALIFORNIA INSTITUTE OF TECHNOLOGY 1760**  
 KNOWLEDGE DISCOVERY AND DATABASE TECHNOLOGIES FOR DIGITAL  
 SKY SURVEYS AND VIRTUAL OBSERVATORIES  
 04/21/2000 - 04/30/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: S DJORGOVSKI  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9487 CALIFORNIA INSTITUTE OF TECHNOLOGY 1761**  
 INTERANNUAL VARIABILITY OF SNOW AND ICE AND IMPACT ON THE  
 CARBON CYCLE  
 04/25/2000 - 04/30/2001 FY00: \$108,245 Total: \$108,245  
 Prin. Invest.: Y L YUNG  
 Tech. Officer: GSFC/P HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9493 CALIFORNIA INSTITUTE OF TECHNOLOGY 1762**  
 DEVELOPMENT OF SUBMILLIMETER SIS MIXERS AND BROAD BAND HEMT  
 AMPLIFIERS  
 04/18/2000 - 04/30/2003 FY00: \$118,000 Total: \$118,000  
 Prin. Invest.: J MUIDZINAS  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9530 CALIFORNIA INSTITUTE OF TECHNOLOGY 1763**  
 MILLIMETER-WAVE INTERFEROMETRY OF PROTO-PLANETARY DISKS  
 04/27/2000 - 04/30/2003 FY00: \$85,000 Total: \$85,000  
 Prin. Invest.: S SARGENT  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9601 CALIFORNIA INSTITUTE OF TECHNOLOGY 1764**  
 MARTIAN ATMOSPHERIC CIRCULATION AND CLIMATE  
 05/17/2000 - 04/30/2001 FY00: \$68,200 Total: \$68,200  
 Prin. Invest.: A P INGERSOL  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9603 CALIFORNIA INSTITUTE OF TECHNOLOGY 1765**  
 VIRTUAL OBSERVATORIES OF THE FUTURE  
 05/19/2000 - 05/14/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: S DJORGOVSKI  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9606 CALIFORNIA INSTITUTE OF TECHNOLOGY 1766**  
 IMPLICATIONS OF MARTIAN NORTH-SOUTH POLAR DIFFERENCES  
 05/12/2000 - 05/14/2001 FY00: \$48,700 Total: \$48,700  
 Prin. Invest.: B C MURRAY  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9687 CALIFORNIA INSTITUTE OF TECHNOLOGY 1767**  
 IN SITU CHEMICAL IMAGER  
 06/05/2000 - 05/31/2001 FY00: \$94,150 Total: \$94,150  
 Prin. Invest.: J L KIRSCHVINK  
 Tech. Officer: GSFC/B BETTS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9821 CALIFORNIA INSTITUTE OF TECHNOLOGY 1768**  
 COSMOLOGY & PARTICLE ASTROPHYSICS THEORY (ATP-98)  
 08/23/2000 - 04/30/2001 FY00: \$115,107 Total: \$115,107  
 Prin. Invest.: M P KAMIONKOWSKI  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9856 CALIFORNIA INSTITUTE OF TECHNOLOGY 1769**  
 ROCKET-BORNE OBSERVATIONS OF SPATIAL FLUCTUATIONS IN THE  
 COSMIC NEAR INFRARED BACKGROUND  
 08/07/2000 - 08/14/2001 FY00: \$94,200 Total: \$94,200  
 Prin. Invest.: A LANGE  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9919 CALIFORNIA INSTITUTE OF TECHNOLOGY 1770**  
 THE HOT PHASE OF THE VIOLENT ISM OF NEARBY DWARF IRREGULAR  
 GALAXIES  
 09/05/2000 - 09/30/2001 FY00: \$29,300 Total: \$29,300  
 Prin. Invest.: F WALTER  
 Tech. Officer: GSFC/R F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9920 CALIFORNIA INSTITUTE OF TECHNOLOGY 1771**  
 A DETAILED STUDY OF TWO OPTICALLY-SELECTED, HIGH- REDSHIFT  
 CLUSTERS OF GALAXIES  
 09/05/2000 - 09/14/2001 FY00: \$28,595 Total: \$28,595  
 Prin. Invest.: L M LUBIN  
 Tech. Officer: GSFC/R F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1237 CALIFORNIA INSTITUTE OF TECHNOLOGY 1772**  
 DISPERSION MICROSTRUCTURE AND RHEOLOGY IN CERAMICS PROC-  
 ESSING  
 04/22/1996 - 04/21/2000 FY00: \$31,250 Total: \$299,756  
 Prin. Invest.: D F BRADY  
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1661 CALIFORNIA INSTITUTE OF TECHNOLOGY 1773**  
 DISPERSION MICROSTRUCTURE AND PHEOLOGY IN CERAMICS PROC-  
 ESSING  
 05/16/2000 - 11/30/2003 FY00: \$44,994 Total: \$44,994  
 Prin. Invest.: J BRADY  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1743 CALIFORNIA INSTITUTE OF TECHNOLOGY 1774**  
 MEASUREMENT OF THERMOPHYSICAL PROPERTIES OF MOLTEN SILICON  
 AND GERMANIUM  
 09/27/2000 - 09/30/2003 FY00: \$150,000 Total: \$150,000  
 Prin. Invest.: W K RHIM  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 8 1744 CALIFORNIA INSTITUTE OF TECHNOLOGY 1775**  
 MEASUREMENT OF THERMOPHYSICAL PROPERTIES OF MOLTEN SILICON  
 AND GERMANIUM  
 09/27/2000 - 09/30/2004 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: W L JOHNSON  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1013 CALIFORNIA INSTITUTE OF TECHNOLOGY 1776**  
 GENESIS DISCOVERY MISSION PHASE B  
 05/13/1998 - 08/24/2001 FY00: \$164,197 Total: \$350,710  
 Prin. Invest.: D S BURNETT  
 Tech. Officer: JSC/E K STANSBERRY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 3 27263 CALIFORNIA INSTITUTE OF TECHNOLOGY 1777**  
 SOLUTE NUCLEATION & GROWTH IN SUPERCRITICAL FLUID MIXTURES  
 08/18/1994 - 04/17/1999 FY00: -\$343 Total: \$174,615  
 Prin. Invest.: G T SMEDLEY, G WILEMSKI  
 Tech. Officer: GRC/G A ZIMMERK  
 CASE Category: 43 - CHEMICAL ENGR

**NAS 5 32642 CALIFORNIA INSTITUTE OF TECHNOLOGY 1778**  
 HIGH RESOLUTION IRAS MAPS OF THE GALAXY AT 60 & 100 MICRONS  
 09/20/1994 - 10/19/1998 FY00: \$0 Total: \$232,606  
 Prin. Invest.: T A PRINCE  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAS 5 98034 CALIFORNIA INSTITUTE OF TECHNOLOGY 1779**  
 PHASE A STUDY FOR GALE X (GALAXY EVOLUTION EXPLORER) INVESTIGATION  
 12/05/1997 - 09/30/2004 FY00: \$17,844,000 Total: \$38,208,000  
 Prin. Invest.: C MARTIN  
 Tech. Officer: GSFC/F SNOW  
 CASE Category: 11 - ASTRONOMY

**NAS 5 98152 CALIFORNIA INSTITUTE OF TECHNOLOGY 1780**  
 CONSTELLATION X-RAY MISSION  
 06/22/1998 - 12/15/2001 FY00: \$62,000 Total: \$376,970  
 Prin. Invest.: F HARRISON  
 Tech. Officer: GSFC/J GRADY  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 2 5271 CALIFORNIA INSTITUTE OF TECHNOLOGY 1781**  
 WAFLET METHODS FOR RAPID, HIERARCHICAL INTERROGATION OF LARGE CFD DATA SETS  
 06/25/1998 - 12/31/1999 FY00: \$0 Total: \$51,116  
 Prin. Invest.: P SCHRODER  
 Tech. Officer: ARC/M J GERALD-YAMASAKI, ARC/A VAZUIRI  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 8 119 CALIFORNIA INSTITUTE OF TECHNOLOGY 1782**  
 R/S PHYSICAL PROPERTIES AND PROCESSING OF UNDER-COOLED METALLIC GLASS FORMING LIQUIDS  
 11/11/1996 - 09/30/2000 FY00: \$150,000 Total: \$600,000  
 Prin. Invest.: W L JOHNSON Prin. Invest.: NONE  
 Tech. Officer: MSFC/A C DELOACH  
 CASE Category: 49 - ENGINEERING, OTHER

**NCCW 62 CALIFORNIA INSTITUTE OF TECHNOLOGY 1783**  
 KECK OBSERVATORY COLLABORATION  
 09/30/1994 - 09/30/2000 FY00: \$0 Total: \$34,000,000  
 Prin. Invest.: E STONE  
 Tech. Officer: HQ/J H RAHE  
 CASE Category: 11 - ASTRONOMY

**NGT 2 52240 CALIFORNIA INSTITUTE OF TECHNOLOGY 1784**  
 ANNUAL TELLURIDE WORKSHOP ON NEUROMORPHIC ENGINEERING  
 05/01/1998 - 09/30/1998 FY00: \$0 Total: \$30,000  
 Prin. Invest.: C KOCH  
 Tech. Officer: ARC/S F ZPRNETZER, ARC/A R GROSS  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 5 30068 CALIFORNIA INSTITUTE OF TECHNOLOGY 1785**  
 EL NINO PREDICTABILITY: CAN OBSERVATIONS BE USED TO MODEL  
 09/09/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: Y YUNG  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30096 CALIFORNIA INSTITUTE OF TECHNOLOGY 1786**  
 THE ISOTOPIC COMPOSITION OF STRATOSPHERIC AND UPPER-ATMOSPHERIC AS A TRACER OF TROPOSPHERE-STRATOSPHERE EXCHANGE/M  
 09/10/1997 - 08/31/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: Y L YUNG  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30135 CALIFORNIA INSTITUTE OF TECHNOLOGY 1787**  
 SAR INTERFEROMETRIC CONSTRAINTS ON ICE CAP MASS BALANCE AND DYNAMICS IN ICELAND/STUDENT: GERBI  
 09/04/1998 - 08/31/1999 FY00: -\$3,766 Total: \$18,234  
 Prin. Invest.: M SIMONS  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30138 CALIFORNIA INSTITUTE OF TECHNOLOGY 1788**  
 CRUCIAL DESERTIFICATION PROCESSES FOR MONITORING ARID LANDS  
 08/27/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: B C MURRAY, OKIN, NONE  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50006 CALIFORNIA INSTITUTE OF TECHNOLOGY 1789**  
 DEVELOPMENT OF MULTILAYER FOCUSSED TELESCOPE FOR THE HARD X-RAY BAND  
 11/25/1996 - 09/30/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: F A HARRISON  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 13 - PHYSICS

**NGT 5 50045 CALIFORNIA INSTITUTE OF TECHNOLOGY 1790**  
 INTEGRAL FIELD SPECTROSCOPY OF ULTRALUMINOUS INFRARED  
 08/05/1997 - 09/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: B SOIFER  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50200 CALIFORNIA INSTITUTE OF TECHNOLOGY 1791**  
 LABORATORY STUDY OF REACTIONS IMPORTANT IN THE FORMATION OF TROPOSPHERIC OZONE AND THE DEVELOPMENT  
 06/24/1998 - 09/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: M OKUMURA  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 12 - CHEMISTRY

**NGT 5 50215 CALIFORNIA INSTITUTE OF TECHNOLOGY 1792**  
 FROM EARTH TO ORBIT: UTILIZING THE DIGITIZED PALOMAR SURVEY IN NASA MISSIONS (STUDENT: ROY GAL)  
 07/22/1998 - 07/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: S G DJORGOVSKI  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50231 CALIFORNIA INSTITUTE OF TECHNOLOGY 1793**  
 CHEMICAL PROCESSES IN CIRCUMSTELLAR ACCRETION DISKS (STUDENT: JACQUELINE KESSLER)  
 05/27/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: G BLAKE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50249 CALIFORNIA INSTITUTE OF TECHNOLOGY 1794**  
 OBSERVATIONS OF CMB ANISOTROPIES WITH THE ARCADE COSMOLOGY BOLOMETRIC ARRAY RECEIVER (STUDENT: MA)  
 06/04/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: A LANGE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50278 CALIFORNIA INSTITUTE OF TECHNOLOGY 1795**  
 BOLOMETRIC POLARIMETRY FOR COSMOLOGY  
 06/20/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: A LANGE  
 Tech. Officer: GSFC/L K SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50280 CALIFORNIA INSTITUTE OF TECHNOLOGY 1796**  
 INVESTIGATION OF VACUUM ARC ION THRUSTER FOR SPACE PROPULSION APPLICATIONS--STUDENT: MICHA  
 06/20/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: F CULICK  
 Tech. Officer: GSFC/L K SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50308 CALIFORNIA INSTITUTE OF TECHNOLOGY 1797**  
 DEVELOPMENT OF SUPERCONDUCTING CAVITY STABILIZED OSCILLATORS (SCSO) FOR FREQUENCY STANDARDS & PREC  
 07/06/2000 - 09/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: N YEHL  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 60003 CALIFORNIA INSTITUTE OF TECHNOLOGY 1798**  
 A SUMMER RESEARCH PROGRAM OF NASA SUMMER FACULTY F  
 09/23/1997 - 04/30/2000 FY00: \$305,528 Total: \$1,365,527  
 Prin. Invest.: A ALBEE  
 Tech. Officer: GSFC/S MCGEE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2293 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1799**  
 HIGHPOWER ROCKET DEMONSTRATOR OF A REUSABLE GLIDE- BACK BOOSTER  
 04/14/2000 - 09/01/2000 FY00: \$3,797 Total: \$3,797  
 Prin. Invest.: D J DETURRIS  
 Tech. Officer: LARC/T A TALAY  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 1 2327 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1800**  
 SUBSONIC GLIDEBACK ROCKET DEMONSTRATOR FLIGHT TESTING  
 09/08/2000 - 08/31/2001 FY00: \$6,000 Total: \$6,000  
 Prin. Invest.: D DETURRIS  
 Tech. Officer: LARC/T A TALAY  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 2 1092 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1801**  
 DESIGN AIRCRAFT FLIGHT CONTROL SYSTEMS USING THE CONDUIT DEVELOPMENT PROGRAM  
 11/21/1996 - 12/31/1999 FY00: \$0 Total: \$107,009  
 Prin. Invest.: D BIEZAD  
 Tech. Officer: ARC/M B TISCHLER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1169 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1802**  
 CONDUIT SPECIFICATIONS DEVELOPMENT FOR CRUSIE FLIGHT OPERATIONS  
 12/03/1997 - 10/31/1999 FY00: \$0 Total: \$70,000  
 Prin. Invest.: D J BIEZAD  
 Tech. Officer: ARC/M B TISCHLER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1386 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1803**  
 POTENTIAL BENEFITS FROM TMA AND SMS INTEGRATION  
 11/01/1999 - 03/31/2001 FY00: \$118,758 Total: \$118,758  
 Prin. Invest.: S HOCKADAY  
 Tech. Officer: ARC/S ATKINS, ARC/L TOBIAS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 101 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1804**  
 CAL POLY THRUST VECTOR GRADUATE RESEARCH AWARD  
 05/18/1995 - 11/16/1999 FY00: -\$45 Total: \$243,923  
 Prin. Invest.: T W CARPENTER  
 Tech. Officer: DFRC/R RAY, DFRC/A H BOWERS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 142 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1805**  
 K-12 TEACHER EDUCATION WITH NASA AERONAUTICS THEME K-12 TEACHER ED WITH NASA  
 12/11/1997 - 09/30/1999 FY00: -\$11 Total: \$49,989  
 Prin. Invest.: D BIEZAD  
 Tech. Officer: DFRC/L DUKE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 202 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1806**  
 INTEGRATING NASA DRYDEN RESEARCH ENDEAVORS INTO THE TEACHING-LEARNING OF MATHEMATICS IN THE K-12 C  
 02/22/2000 - 01/03/2002 FY00: \$14,931 Total: \$14,931  
 Prin. Invest.: R A WARD, NONE  
 Tech. Officer: DFRC/S YEE  
 CASE Category: 21 - MATHEMATICS

**NAG 5 8674 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1807**  
 ADAPTIVE SAMPLING OF PHYTOPLANKTON RESPONSES TO EPISODIC PHYSICAL FORCING IN THE NEARSHORE COASTAL  
 07/08/1999 - 07/14/2001 FY00: \$81,973 Total: \$198,891  
 Prin. Invest.: M A MOLINE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 983 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1808**  
 A DESIGN-INTERACTIVE HANDLING QUALITIES EVALUATION TOOL WITH APPLICATIONS TO ROTORCRAFT FLIGHT CONT  
 03/27/1997 - 12/14/1999 FY00: \$0 Total: \$202,155  
 Prin. Invest.: D BIEZAD  
 Tech. Officer: ARC/M B TISCHLER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 1149 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1809**  
 DEVELOPMENT OF MULTIDISCIPLINARY FLIGHT CONTROL DESIGN PROCESSES USING CONDUIT  
 12/01/1999 - 12/31/2000 FY00: \$110,000 Total: \$110,000  
 Prin. Invest.: D J BIEZAD  
 Tech. Officer: ARC/M TISCHLER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5279 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1810**  
 INTELLIGENT TOOLS FOR MEASURING & IMPROVING OVERSEAS GRID QUALITY  
 07/17/1998 - 12/31/1999 FY00: \$0 Total: \$61,650  
 Prin. Invest.: R M CUMMINGS  
 Tech. Officer: ARC/Y M RIZK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5392 CALIFORNIA POLYTECHNIC STATE U-SAN LUIS 1811**  
 INNOVATIVE VERTICAL & SHORT TAKEOFF & LANDING CONC EPTS &  
 SUPPORTING TECHNOLOGIES  
 08/16/2000 - 01/14/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: D W HALL  
 Tech. Officer: ARC/J ZUK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 171 CALIFORNIA ST. POLYTECHNIC U-POMONA 1812**  
 ENHANCEMENT OF RESEARCH & DESIGN CAPABILITIES  
 09/30/1999 - 09/30/2001 FY00: \$25,000 Total: \$120,140  
 Prin. Invest.: W E MORTENSEN  
 Tech. Officer: DFRC/K GUPTA, DFRC/L VOEKLER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 7 10 CALIFORNIA ST. POLYTECHNIC U-POMONA 1813**  
 ESTABLISHMENT OF A NEW BUSINESS INCUBATOR  
 08/06/1998 - 08/06/2001 FY00: \$30,000 Total: \$830,000  
 Prin. Invest.: V H GARNER, E L BARNES  
 Tech. Officer: NMO/T J LLOYD  
 CASE Category: 49 - ENGINEERING, OTHER

**NAS 3 26127 CALIFORNIA STATE UNIVERSITY - CHICO 1814**  
 SERVICES TO OPERATE NASA LEWIS RESEARCH CENTER LEARNING  
 CENTER  
 11/01/1990 - 11/30/1999 FY00: \$0 Total: \$2,171,745  
 Prin. Invest.: J WRIGHT, S GAUL  
 Tech. Officer: GRC/D CONRAD, GRC/C DEMONGEOT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 4 153 CALIFORNIA STATE UNIVERSITY - FRESNO 1815**  
 THERMO-MECHANICAL CHARACTERISTICS OF COMPOSITE MATERIALS  
 03/26/1998 - 03/26/2001 FY00: \$100,000 Total: \$300,000  
 Prin. Invest.: S MAHANTY, NONE  
 Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 172 CALIFORNIA STATE UNIVERSITY - FRESNO 1816**  
 PARTNERSHIP PROJECT EXPLORE  
 09/30/1999 - 09/30/2001 FY00: \$25,000 Total: \$109,914  
 Prin. Invest.: S MAHANTY, T MCCLANAHAN  
 Tech. Officer: DFRC/K GUPTA, DFRC/L VOEKLER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 4945 CALIFORNIA STATE UNIVERSITY - FULLERTON 1817**  
 METEORITE COMPACTION AGES: ANCIENT ENERGETIC PARTICULATE DISSIPATION  
 IN THE EARLY SOLAR NEBULA  
 06/23/1997 - 12/31/1999 FY00: \$0 Total: \$150,003  
 Prin. Invest.: D WOOLUM  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9433 CALIFORNIA STATE UNIVERSITY - FULLERTON 1818**  
 SOLAR NEBULA THERMAL AND PHYSICAL EVOLUTION AS CONSTRAINED  
 BY PLANETARY, METEORITIC AND ASTRONOMICAL  
 04/21/2000 - 04/14/2001 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: D WOOLUM  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 9 1009 CALIFORNIA STATE UNIVERSITY - FULLERTON 1819**  
 GENESIS: DETECTORS CHARACTERIZATION/SELECTION AND EDUCATIONAL  
 OUTREACH  
 05/05/1998 - 12/31/2000 FY00: \$0 Total: \$101,244  
 Prin. Invest.: D S WOOLUM  
 Tech. Officer: JSC/E K STANSBERRY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 1830 CALIFORNIA STATE UNIVERSITY - LONG BEACH 1820**  
 MAGNETHOLOGICAL FLUIDS: RHEOLOGY AND NONEQUILIBRIUM  
 PATTERN FORMATION  
 04/18/1996 - 04/17/2000 FY00: \$130,000 Total: \$741,000  
 Prin. Invest.: J LIU  
 Tech. Officer: GRC/K HSIEH  
 CASE Category: 13 - PHYSICS

**NAG 5 9310 CALIFORNIA STATE UNIVERSITY - LONG BEACH 1821**  
 INTERNATIONAL, STATE & LOCAL WORKFORCE DEVELOPMENT &  
 CAPACITY BUILDING INSUPPORT OF NASA ESE PROGRAM  
 04/12/2000 - 04/14/2001 FY00: \$99,997 Total: \$99,997  
 Prin. Invest.: C T LEE, NONE  
 Tech. Officer: GSFC/A J TUYAHOV  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 329 CALIFORNIA STATE UNIVERSITY - LONG BEACH 1822**  
 AUGMENTED LEARNING ENVIRONMENT FOR RENEWABLE TEACHING  
 (ALERT)  
 05/07/1998 - 08/14/2001 FY00: \$150,000 Total: \$450,000  
 Prin. Invest.: E AMBOS  
 Tech. Officer: GSFC/B MEESON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 455 CALIFORNIA STATE UNIVERSITY - LONG BEACH 1823**  
 ANALYZING DATA SETS  
 02/15/2000 - 04/06/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: C SHUBIN  
 Tech. Officer: GSFC/M MATTHEWS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1867 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1824**  
 SOLAR EAGLE II PROJECT  
 09/26/1996 - 09/30/1998 FY00: -\$3 Total: \$21,997  
 Prin. Invest.: B LANDIS  
 Tech. Officer: LARC/R A HATHAWAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2029 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1825**  
 ACTIVE ISOLATION TECHNIQUES FOR MITIGATING EARTH-QUAKE  
 EFFECTS  
 03/17/1998 - 03/16/2001 FY00: \$100,000 Total: \$300,000  
 Prin. Invest.: H HASEMIAN  
 Tech. Officer: LARC/H M ADELMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 4 127 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1826**  
 THE SCIENCE AMBASSADOR DISTANCE LEARNING PROJECT NEW AWARD  
 05/23/1997 - 09/30/2000 FY00: \$0 Total: \$781,930  
 Prin. Invest.: T ADENIKA-MORROW  
 Tech. Officer: DFRC/E L DUKE, DFRC/E COX  
 CASE Category: 41 - AERONAUTICAL ENGR



**NAG 4 130 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1827**  
COMPUTER SIMULATION OF PLANNING/NAVIGATION IN TWO AND THREE  
DIMENSIONAL DYNAMIC ENVIRONMENTS  
05/23/1997 - 09/30/2000 FY00: \$0 Total: \$400,000  
Prin. Invest.: C WU Prin. Invest.: NONE  
Tech. Officer: DFRC/K K GUPTA  
CASE Category: 22 - COMPUTER SCIENCE

**NAG 4 136 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1828**  
SIMULATION AND CONTROL OF SYPERSONIC VEHICLE NEW AWARD  
06/27/1997 - 08/31/1999 FY00: \$3,257 Total: \$99,955  
Prin. Invest.: M MIRMIRANI  
Tech. Officer: DFRC/K K GUPTA  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 151 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1829**  
FAR STUDY OF CINTROL STRUCTURE INTERACTION IN LARGE FLEXIBLE  
SPACE STRUCTURE  
03/26/1998 - 03/26/2001 FY00: \$100,000 Total: \$300,000  
Prin. Invest.: L - HSIA  
Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 173 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1830**  
PATNERSHIP AN INQUIRY AERONAUTICAL SCIENCE DISTANC E LEARNING  
ED PROJECT  
09/16/1999 - 09/17/2001 FY00: \$25,000 Total: \$124,999  
Prin. Invest.: T ADENIKA-MORROW  
Tech. Officer: DFRC/M MCCARTY, DFRC/J LARSON  
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 4 174 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1831**  
PARTNERSHIP INTEGRATION OF CONFIGURATION  
09/16/1999 - 09/17/2001 FY00: \$25,000 Total: \$109,896  
Prin. Invest.: C WU  
Tech. Officer: DFRC/K GUPTA, DFRC/L VOELKER  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 175 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1832**  
PARTNERSHIP CONTROL HYPERSONIC VEHICLES  
09/15/1999 - 09/17/2001 FY00: \$25,000 Total: \$109,347  
Prin. Invest.: M MIRMIRANI  
Tech. Officer: DFRC/K GUPTA, DFRC/L VOELKER  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 3475 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1833**  
MATHEMATICS, SCIENCE AND TECHNOLOGY AWARDS FOR TEA HANCE-  
MENT (MASTAP)/FUTURE ACCREDITED SCIENCE TEAC  
12/16/1996 - 10/15/1998 FY00: -\$1,543 Total: \$198,191  
Prin. Invest.: T ADENIKA-MORROW  
Tech. Officer: GSFC/M MATEU  
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6195 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1834**  
PACE/MSET AWARD. PERIOD OF PERFORMANCE JULY 1, 199  
08/29/1997 - 06/30/1999 FY00: \$0 Total: \$199,995  
Prin. Invest.: W TAYLOR  
Tech. Officer: GSFC/D STOUTSENBERGER  
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6757 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1835**  
USE OF DECENTRALIZED CONTROL IN DESIGN OF A LARGE SEGMENTED  
SPACEREFLECTOR  
04/06/1998 - 12/31/1999 FY00: \$0 Total: \$2,000,000  
Prin. Invest.: H R BOUSSALIS Prin. Invest.: NONE  
Tech. Officer: GSFC/J MALONE  
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7401 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1836**  
INTEGRATING MODELS WITH NARROW-BAND, MULTI-SCALE, REMOTELY  
SENSED DATA FOR IMPROVED ASSESSMENT OF P  
05/20/1998 - 06/30/2000 FY00: \$58,728 Total: \$260,338  
Prin. Invest.: J A GAMON  
Tech. Officer: GSFC/D E WICKLAND  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8889 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1837**  
USE OF DECENTRALIZED CONTROL IN DESIGN OF A SEGMENTED SPACE  
01/03/2000 - 12/31/2001 FY00: \$500,000 Total: \$500,000  
Prin. Invest.: H R BOUSSALIS  
Tech. Officer: GSFC/J MALONE  
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8945 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1838**  
ASYMMETRIES AND VARIATIONS IN JUPITER'S MAGNETO SPHERE  
01/28/2000 - 01/14/2001 FY00: \$62,700 Total: \$62,700  
Prin. Invest.: K KHURANA  
Tech. Officer: GSFC/D BOGAN  
CASE Category: 11 - ASTRONOMY

**NAG 5 9160 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1839**  
UNIVERSITY PREPARATORY PROGRAM  
03/06/2000 - 02/28/2001 FY00: \$100,000 Total: \$100,000  
Prin. Invest.: M EPSTEIN  
Tech. Officer: GSFC/M STOUTSENBERGER  
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 439 CALIFORNIA STATE UNIVERSITY - LOS ANGELES 1840**  
EXCELLENCE IN SCIENCE AND MATH EDUCATION FOR HARD TO STAFF  
URBAN SCHOOLS  
03/03/2000 - 02/28/2001 FY00: \$199,940 Total: \$199,940  
Prin. Invest.: T ADENIKA-MORROW  
Tech. Officer: GSFC/B WHITE  
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6295 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1841**  
CALIFORNIA STATE UNIVERSITY - EARTH SYSTEM SCIENCE  
09/17/1997 - 02/28/1999 FY00: -\$8,953 Total: \$11,047  
Prin. Invest.: J F PARIS  
Tech. Officer: GSFC/N KHAZENIE  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6529 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1842**  
DEVELOPMENT OF A REGIONAL-SCALE ECOSYSTEM PROCESS MODEL  
FOR EVALUATING THE IMPACTS OF DEVELOPMENT A  
12/08/1997 - 10/31/2001 FY00: \$0 Total: \$700,000  
Prin. Invest.: L PIERCE  
Tech. Officer: GSFC/A JANETOS  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG13 99020 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1843**  
 APPLICATION OF REMOTE SENSING AND ECOSYSTEM MODEL- ING TO  
 VINEYARD MANAGEMENT IN CA NAPA VALLEY  
 08/13/1999 - 11/01/2000 FY00: \$53,582 Total: \$141,107  
*Prin. Invest.:* L F JOHNSON  
*Tech. Officer:* SSC/R MCKELLIP  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAS13 98071 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1844**  
 HYPERSPECTRAL DETECTION OF NITROGEN STRESS IN VEGETABLE  
 CROPS SALINAS VALLEY MONTEREY COUNTY  
 09/30/1998 - 09/29/2000 FY00: \$42,286 Total: \$167,286  
*Prin. Invest.:* L F JOHNSON  
*Tech. Officer:* SSC/H CARR  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 975 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1845**  
 COOPERATIVE RESEARCH IN EARTH SYSTEM SCIENCE, TEC HNOLOGY &  
 APPLICATIONS  
 12/19/1996 - 06/30/2000 FY00: \$167,900 Total: \$1,568,860  
*Prin. Invest.:* S E ALEXANDER, L F JOHNSON, J C COUGHLAN  
*Tech. Officer:* ARC/J C COUGHLAN, ARC/J A BRASS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 1186 CALIFORNIA STATE UNIVERSITY - MONTEREY BAY 1846**  
 REMOTE SENSING, ECOSYSTEM MODELING, & GEOSPATIAL A NALYSIS  
 FOR EARTH SYSTEMS SCIENCE & HEALTH  
 06/28/2000 - 06/30/2001 FY00: \$473,146 Total: \$473,146  
*Prin. Invest.:* S E ALEXANDER  
*Tech. Officer:* ARC/J C COUGHLAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 4 162 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1847**  
 NASA EXPLORERS  
 02/24/1999 - 12/31/2001 FY00: \$100,000 Total: \$182,753  
*Prin. Invest.:* W FURUMOTO, M LIPSCHUTZ, G MASSEY  
*Tech. Officer:* DFRC/M MCCARTHY, DFRC/J LARSON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4973 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1848**  
 PRECISE GROUND-BASED PHOTOMETRIC OBSERVATIONS AND SOLAR  
 TOTAL AND SPECTRAL IRRADIANCE OBSERVATIONS B  
 06/23/1997 - 10/31/2000 FY00: \$0 Total: \$150,003  
*Prin. Invest.:* G A CHAPMAN  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7191 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1849**  
 ACQUISITION AND ANALYSIS OF PRECISE GROUND-BASED P HOTO-  
 METRIC FULL-DISK IMAGES FOR THE UNDERSTANDIN  
 03/25/1998 - 07/31/2001 FY00: \$60,150 Total: \$127,130  
*Prin. Invest.:* G A CHAPMAN  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7778 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1850**  
 A PROPOSAL TO CHARACTERIZE AND UNDERSTAND THE SOUR CES OF  
 SOLAR TOTAL ANDSPECTRAL IRRADIANCE VARIABI  
 10/28/1998 - 01/31/2002 FY00: \$0 Total: \$36,687  
*Prin. Invest.:* D A CHAPMAN, NONE  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7878 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1851**  
 A PROPOSAL TO COMPARE GROUND-BASED PHOTOMETRIC IMA GES  
 WITH IRRADIANCE DATA FROM SOHO  
 12/01/1998 - 12/14/2000 FY00: \$11,840 Total: \$23,840  
*Prin. Invest.:* G A CHAPMAN  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8004 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1852**  
 CORONAL COUNTERPARTS OF CHROMOSPHERIC QUIET SUN DY NAMICAL  
 EVENTS  
 01/19/1999 - 01/14/2000 FY00: \$0 Total: \$52,700  
*Prin. Invest.:* M J PENN  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9726 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1853**  
 MICROSTRIP ANTENNA DEVELOPMENT FOR SPACECRAFT APPL ICATIONS  
 07/10/2000 - 08/31/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* S RENGARAJAN  
*Tech. Officer:* GSFC/C PERSON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1021 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1854**  
 EXAMINING THE EFFECTS OF HIGH-LEVEL INTERRUPTIONS ON PART 121  
 AIRCREW PERFORMANCE  
 02/25/1998 - 01/31/2000 FY00: \$0 Total: \$78,707  
*Prin. Invest.:* B TABACHIVIDE, D DAMIS  
*Tech. Officer:* ARC/R K DISMUKES  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 381 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1855**  
 SPECTRO-POLARIMETRY OF PLANETARY OBJECTS  
 02/19/1999 - 08/31/2000 FY00: \$0 Total: \$13,790  
*Prin. Invest.:* M J PENN  
*Tech. Officer:* GSFC/J E ALLEN  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 489 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1856**  
 ANALYZING DATA SETS  
 04/06/2000 - 02/28/2001 FY00: \$298,022 Total: \$298,022  
*Prin. Invest.:* C SHUBIN  
*Tech. Officer:* GSFC/M MATTHEWS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 513 CALIFORNIA STATE UNIVERSITY - NORTHRIDGE 1857**  
 FAILURE ANALYSIS PREVENTION, AND RELIABILITY MODEL ING FOR SUB-  
 MICRON ELECTRONICS TECHNOLOGY, A RESE  
 08/29/2000 - 08/31/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* B BAVARIAN  
*Tech. Officer:* GSFC/C PERSON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

## NASA'S UNIVERSITY PROGRAM

## CALIFORNIA

**NAG 8 1220 CALIFORNIA STATE UNIVERSITY - SACRAMENTO 1858**  
 JOVE  
 11/30/1995 - 08/31/2000 FY00: \$0 Total: \$89,600  
 Prin. Invest.: B HAUSBACK, Z NDLELA  
 Tech. Officer: MSFC/D SIX  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 4 140 CALIFORNIA STATE UNIVERSITY-BAKERSFIELD 1859**  
 EVALUATION ASSISTANCE FOR DFRC AND ENGINEERING EVALUATION  
 ASSISTANCE FOR DFRC  
 11/18/1997 - 11/18/1999 FY00: -\$122 Total: \$107,789  
 Prin. Invest.: K L NYBERG  
 Tech. Officer: DFRC/K SHY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 200 CALIFORNIA STATE UNIVERSITY-BAKERSFIELD 1860**  
 METRIC ANALYSIS AND EVALUATION FOR NASA/DRYDEN FLIGHT  
 RESEARCH  
 01/31/2000 - 02/06/2003 FY00: \$54,443 Total: \$54,443  
 Prin. Invest.: K L NYBERG  
 Tech. Officer: DFRC/K S SHY  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 4 161 CALIFORNIA STATE UNIVERSITY, DOMINQUEZ HILLS 1861**  
 STEP PACE SCIENCE TECH PROJECT  
 02/17/1999 - 12/31/2001 FY00: \$100,000 Total: \$199,983  
 Prin. Invest.: E KRINSKY  
 Tech. Officer: DFRC/M MC CARTHY, DFRC/J LARSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG13 99010 CALIFORNIA STATE UNIVERSITY, DOMINQUEZ HILLS 1862**  
 SOUTHERN CALIFORNIA CENTER FOR MANAGING FIRE HAZARDS AT THE  
 URBAN WILDLANDS INTERFACE  
 03/03/1999 - 03/02/2002 FY00: \$0 Total: \$1,087,523  
 Prin. Invest.: C LEE  
 Tech. Officer: JSC/C HILL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8017 CLAREMONT MCKENNA COLLEGE 1863**  
 THE COSMIC RAY PATH LENGTH DISTRIBUTION EXPECTED FROM THE  
 LOCAL SPACE AND TIME DEPENDENT SUPERNOV  
 01/06/1999 - 12/31/2000 FY00: \$37,686 Total: \$74,250  
 Prin. Invest.: D C HIGDON  
 Tech. Officer: GSFC/D C LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4883 COLLEGE OF SAN MATEO 1864**  
 DEVELOP REMOTE SENSING EDUCATIONAL MATERIALS TO BE USED BY  
 COLLEGES ACROSS THE US.  
 08/01/1997 - 12/31/1999 FY00: \$0 Total: \$224,000  
 Prin. Invest.: K D KENNEDY  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 2 1001 FOOTHILL-DE ANZA COMM COLLEGE SYSTEM OFFICE 1865**  
 SCIENTIFIC-TECHNICAL & BUSINESS CAREERS TRAINING GRANT  
 07/07/1993 - 08/31/2001 FY00: \$1,821,330 Total: \$9,148,620  
 Prin. Invest.: M CONWAY  
 Tech. Officer: ARC/M E LOPEZ, ARC/J M MCCULLOUGH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9700 GLENDALE COMMUNITY COLLEGE 1866**  
 CIMMARUSTI SCIENCE CENTER  
 07/18/2000 - 08/14/2003 FY00: \$3,831,000 Total: \$3,831,000  
 Prin. Invest.: L SEROT  
 Tech. Officer: GSFC/H KASS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 5293 HARVEY MUDD COLLEGE 1867**  
 SOFIA - ADVANCED DIAGNOSTIC SYSTEM  
 09/15/1998 - 06/30/1999 FY00: \$0 Total: \$36,000  
 Prin. Invest.: C L DYM  
 Tech. Officer: ARC/D L IVERSON  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 5 236 LOMA LINDA UNIVERSITY 1868**  
 COOPERATIVE RESEARCH IN PROTON SPACE RADIATION  
 09/10/1997 - 09/30/1998 FY00: \$0 Total: \$3,000,000  
 Prin. Invest.: D NELSON  
 Tech. Officer: GSFC/W SCHIMMERLING  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 9 79 LOMA LINDA UNIVERSITY 1869**  
 PROTON SPACE RESEARCH  
 01/13/1999 - 09/30/2000 FY00: \$0 Total: \$12,000,000  
 Prin. Invest.: G A NELSON  
 Tech. Officer: JSC/F A CUCINOTTA  
 CASE Category: 13 - PHYSICS

**NAG 5 7050 LOYOLA MARYMOUNT UNIVERSITY 1870**  
 TRACKING TRANSIENT EVENTS FROM THE SOLAR WIND TO THE MAGNETOSPHERE  
 03/23/1998 - 03/31/2001 FY00: \$0 Total: \$42,940  
 Prin. Invest.: J SANNY  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 11 - ASTRONOMY

**NAG 2 6016 NATIONAL HISPANIC UNIVERSITY 1871**  
 LEARNING INNOVATIVE MATHEMATICS & SCIENCE WITH TECHNOLOGY  
 08/21/1997 - 11/30/1998 FY00: -\$46,293 Total: \$86,802  
 Prin. Invest.: R D PARKER  
 Tech. Officer: ARC/G S LEE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6379 PASADENA CITY COLLEGE 1872**  
 PACE/MSET AWARD  
 11/07/1997 - 07/31/1999 FY00: \$0 Total: \$197,806  
 Prin. Invest.: J CONNOR  
 Tech. Officer: GSFC/M STOUTSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 6031 PERALTA COMMUNITY COLLEGE SYSTEM OFFICE 1873**  
 LEARNING INNOVATIVE MATHEMATICS & SCIENCE WITH TECHNOLOGY  
 03/05/1999 - 02/29/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: R J PARKER, NONE  
 Tech. Officer: ARC/B J COLLINS, ARC/G S LEE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

<p><b>NAG 5 9618</b>                      <b>POMONA COLLEGE</b>                      <b>1874</b>  THERMAL AND MECHANICAL ANALYSIS OF SMALL, SHALLOW MAGMA  RESERVOIRS ON MARS  05/18/2000 - 05/14/2001                      FY00: \$38,400                      Total: \$38,400  Prin. Invest.: E GROSFILS  Tech. Officer: GSFC/J BOYCE  CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p><b>NGT 5 30118</b>                      <b>SAN DIEGO STATE UNIVERSITY</b>                      <b>1882</b>  USING REMOTE SENSING &amp; NATURAL CO2 SPRINGS TO UNDE OF  ELEVATED CO2 ON ECOSYSTEMS STRUCTURE AND FUNCT  09/26/1997 - 08/31/1999                      FY00: \$0                      Total: \$22,000  Prin. Invest.: W C OECHEL  Tech. Officer: GSFC/G ASRAR  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 5 6060</b>                      <b>SAN DIEGO STATE UNIVERSITY</b>                      <b>1875</b>  MECHANISM OF AUXIN ACTION IN ROOT GROWTH/GRAVITRO  07/29/1997 - 04/30/1999                      FY00: -\$775                      Total: \$122,067  Prin. Invest.: D RAYLE  Tech. Officer: GSFC/N SCHNEIDER  CASE Category: 59 - LIFE SCIENCE, OTHER</p>	<p><b>NGT 5 30335</b>                      <b>SAN DIEGO STATE UNIVERSITY</b>                      <b>1883</b>  LONG-TERM IMPACTS OF FIRE ON STREAMFLOW IN CALIFOR NIA  MEDITERRANEAN-TYPE SHRUB LANDS: AN INTEGRATED  08/21/2000 - 08/31/2001                      FY00: \$22,000                      Total: \$22,000  Prin. Invest.: A S HOPE  Tech. Officer: GSFC/M WEI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 8560</b>                      <b>SAN DIEGO STATE UNIVERSITY</b>                      <b>1876</b>  ENVIRONMENTAL CHANGE AND NATURAL HAZARD ASSESSMENT IN  WESTERN TURKMENIS-TAN USING INTERFEROMETRIC SY  07/14/1999 - 06/30/2001                      FY00: \$39,784                      Total: \$86,560  Prin. Invest.: R MELLORS  Tech. Officer: GSFC/M Y WEI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 2 1285</b>                      <b>SAN FRANCISCO STATE UNIVERSITY</b>                      <b>1884</b>  FREE FLIGHT INFORMATION &amp; AUTOMATION ISSUES  02/08/1999 - 12/31/2000                      FY00: \$91,256                      Total: \$162,256  Prin. Invest.: K L MOSIER, E A LYALL  Tech. Officer: ARC/J M ORASANU  CASE Category: 69 - PSYCHOLOGY, OTHER</p>
<p><b>NAG13 99017</b>                      <b>SAN DIEGO STATE UNIVERSITY</b>                      <b>1877</b>  REGIONAL CHANGE MONITORING OF HABITAT RESERVE SYSTEMS WITH  VERY HIGH RESOLUTION REMOTELY SENSED  07/19/1999 - 07/18/2001                      FY00: \$127,475                      Total: \$215,000  Prin. Invest.: D STOW  Tech. Officer: JSC/R MCKELLIP  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7459</b>                      <b>SAN FRANCISCO STATE UNIVERSITY</b>                      <b>1885</b>  DETECTING EXTRA-SOLAR PLANETS: CROSSING THE JUPIT ER  THRESHOLD  09/24/1998 - 06/30/2000                      FY00: \$0                      Total: \$34,858  Prin. Invest.: D W MARCY  Tech. Officer: GSFC/J BOYCE  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAS 5 97126</b>                      <b>SAN DIEGO STATE UNIVERSITY</b>                      <b>1878</b>  SIMBIOS NORMALIZED WATER-LEAVING RADIANCE CAL/VAL  08/18/1997 - 11/30/2000                      FY00: \$35,000                      Total: \$779,480  Prin. Invest.: J L MUELLER  Tech. Officer: GSFC/C R MCCLAIN  CASE Category: 33 - OCEANOGRAPHY</p>	<p><b>NAG 5 7511</b>                      <b>SAN FRANCISCO STATE UNIVERSITY</b>                      <b>1886</b>  THE SEASONAL AND INTERANNUAL VARIABILITY OF PHYTOP LANKTON IN  THE BERING SEA AS INFLUENCED BY SEA IC  07/24/1998 - 07/31/2001                      FY00: \$120,000                      Total: \$268,613  Prin. Invest.: D H ROBINSON  Tech. Officer: GSFC/J W MARRA  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NCC13 16</b>                      <b>SAN DIEGO STATE UNIVERSITY</b>                      <b>1879</b>  VISITING INVESTIGATOR PROGRAM VISITING INVESTIGATOR PROGRAM  09/25/1996 - 12/31/1999                      FY00: \$49,178                      Total: \$524,152  Prin. Invest.: D HERGERT  Tech. Officer: SSC/H CARR  CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p><b>NAG 5 7632</b>                      <b>SAN FRANCISCO STATE UNIVERSITY</b>                      <b>1887</b>  MONITORING ECOSYSTEM CONDITION &amp; STRESS IN THE SAN PABLO BAY,  CA REGION  08/21/1998 - 08/31/2000                      FY00: \$0                      Total: \$99,885  Prin. Invest.: R KUDELA  Tech. Officer: HQ/J CAMPBELL  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NCC13 00002</b>                      <b>SAN DIEGO STATE UNIVERSITY</b>                      <b>1880</b>  AFFILIATED RESEARCH CENTE (ARC) PROGRAM AT SAN DIEGO STATE  UNIVERSITY  02/11/2000 - 02/10/2001                      FY00: \$150,000                      Total: \$150,000  Prin. Invest.: D STOW, NONE  Tech. Officer: SSC/N SOVIK  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 5 8013</b>                      <b>SAN FRANCISCO STATE UNIVERSITY</b>                      <b>1888</b>  A COUPLED ICE-OCEAN MODEL OF MESOSCALE PHYSICAL/BIO LOGICAL  INTERACTIONS IN THE SOUTHERN OCEAN  01/20/1999 - 01/31/2001                      FY00: \$67,210                      Total: \$115,840  Prin. Invest.: D H ROBINSON  Tech. Officer: GSFC/J W CAMPBELL  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NGT 5 30077</b>                      <b>SAN DIEGO STATE UNIVERSITY</b>                      <b>1881</b>  THIRD YEAR FUNDING: "EFFECTS OF ELEVATED CO2 AND FOREST  PRODUCTIVITY AND NUTRIENT DYNAMICS IN TUSCA  09/10/1997 - 12/31/1999                      FY00: \$0                      Total: \$22,000  Prin. Invest.: D ALLEN  Tech. Officer: GSFC/G ASRAR  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 5 8299</b>                      <b>SAN FRANCISCO STATE UNIVERSITY</b>                      <b>1889</b>  DETECTING EXTRASOLAR PLANETS  02/23/1999 - 06/30/1999                      FY00: -\$125,507                      Total: \$593  Prin. Invest.: D W MARCY  Tech. Officer: HQ/J BOYCE  CASE Category: 11 - ASTRONOMY</p>

**NAS 9 19410**      **SAN FRANCISCO STATE UNIVERSITY**      **1890**  
ANALYSIS OF VOLATILE ORGANIC COMPOUNDS ON MIR STATION  
10/27/1995 - 01/31/2000      FY00: \$0      Total: \$396,735  
Prin. Invest.: D PALMER  
Tech. Officer: JSC/A PLAZA  
CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 2 1128**      **SAN FRANCISCO STATE UNIVERSITY**      **1891**  
CONSTRUCTION OF A LONG-TERM CLIMATOLOGY OF ANTARCTIC & ARCTIC  
POLAR STRATOSPHERIC CLOUDS BY AN AUTOM  
07/01/1999 - 06/14/2001      FY00: \$51,000      Total: \$105,000  
Prin. Invest.: K L PAGAN  
Tech. Officer: ARC/R S HIPSKIND  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5301**      **SAN FRANCISCO STATE UNIVERSITY**      **1892**  
AERONAUTICAL TELECOMMUNICATION NETWORK MODELING & SIMULATION  
12/04/1998 - 11/30/2000      FY00: \$0      Total: \$59,973  
Prin. Invest.: H SHAHNASSER  
Tech. Officer: ARC/P R GRAMS, ARC/J WANG  
CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5318**      **SAN FRANCISCO STATE UNIVERSITY**      **1893**  
EXERCISE ON A SHORT-ARM CENTRIFUGE  
04/23/1999 - 03/31/2000      FY00: -\$12,857      Total: \$49,010  
Prin. Invest.: P R BARNES  
Tech. Officer: ARC/J E GREENLEAF  
CASE Category: 56 - MEDICAL

**NCC 2 5324**      **SAN FRANCISCO STATE UNIVERSITY**      **1894**  
THE CHEMISTRY, MINERALOGY & SPECTROSCOPY OF THE BIOGENIC  
ELEMENTS IN MARS SOIL ANALOGS  
05/17/1999 - 11/30/1999      FY00: \$0      Total: \$26,120  
Prin. Invest.: J B ORENBURG  
Tech. Officer: ARC/T L ROUSH  
CASE Category: 12 - CHEMISTRY

**NAG 1 2205**      **SAN JOSE STATE UNIVERSITY**      **1895**  
CHARACTERIZING STRATOSPHERIC & TROPOSPHERIC AEROSOL: THEORETICAL  
STUDIES & ANALYSIS OF SATELLITE DATA (NRA)  
06/15/1999 - 05/31/2002      FY00: \$30,000      Total: \$54,103  
Prin. Invest.: P HAMILL  
Prin. Invest.: NONE  
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 848**      **SAN JOSE STATE UNIVERSITY**      **1896**  
DEVELOPMENT OF PROCESSING TECHNIQUES FOR ADVANCED THERMAL  
PROTECTION MATERIALS  
06/17/1993 - 05/31/1999      FY00: -\$7      Total: \$391,164  
Prin. Invest.: G SELVADURAY  
Tech. Officer: ARC/D B LEISER  
CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 2 1163**      **SAN JOSE STATE UNIVERSITY**      **1897**  
THERMAL PROPERTY PARAMETER ESTIMATION OF TPS MATERIALS  
09/25/1997 - 06/30/1999      FY00: \$0      Total: \$48,009  
Prin. Invest.: J MADDREN  
Tech. Officer: ARC/D J RASKY, ARC/D LEISER  
CASE Category: 49 - ENGINEERING, OTHER

**NAG 2 1223**      **SAN JOSE STATE UNIVERSITY**      **1898**  
MODIFYING THE HUMAN MACHINE INTERFACE BASED ON QUALITATIVE  
MEASUREMENT OF THE LEVEL OF AWARENESS  
06/18/1998 - 08/31/1999      FY00: -\$1      Total: \$100,991  
Prin. Invest.: L FEUNG, R B KNAPP  
Tech. Officer: ARC/V M BATTISTE, ARC/W W JOHNSON  
CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 2 1421**      **SAN JOSE STATE UNIVERSITY**      **1899**  
WEB-BASED INTEGRATION OF DATA BASES & APPLICATIONS FOR  
NATIONAL AIRSPACE SYSTEM ANALYSIS  
07/14/2000 - 07/14/2001      FY00: \$40,000      Total: \$40,000  
Prin. Invest.: G POUR, K CORKER  
Tech. Officer: ARC/S HASSAN  
CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1435**      **SAN JOSE STATE UNIVERSITY**      **1900**  
SHARED CONTROL AMONG AIR TRAFFIC CONTROL, FLIGHT DECK, & DECISION  
AIDING SYSTEMS: PERFORMANCE PARAM  
09/13/2000 - 08/31/2001      FY00: \$150,943      Total: \$150,943  
Prin. Invest.: K CORKER  
Tech. Officer: ARC/I C STATLER  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 4372**      **SAN JOSE STATE UNIVERSITY**      **1901**  
RADIO OCCULTATION INVESTIGATION OF THE RINGS OF SATURN  
04/25/1997 - 02/28/2001      FY00: \$30,400      Total: \$142,400  
Prin. Invest.: D A MAROUF  
Tech. Officer: GSFC/J GRANT  
CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9500**      **SAN JOSE STATE UNIVERSITY**      **1902**  
NUMERICAL SIMULATION OF MARS' CONVECTIVE BOUNDARY LAYER AND  
DUST DEVILS  
05/09/2000 - 05/31/2001      FY00: \$59,200      Total: \$59,200  
Prin. Invest.: S C RAFKIN  
Tech. Officer: GSFC/J BOYCE  
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NAG 5 9751**      **SAN JOSE STATE UNIVERSITY**      **1903**  
MESOSCALE & LES MODELING OF THE MARTIAN ATMOSPHERE WIND  
STREAKS AND DUST DEVILS  
06/27/2000 - 06/30/2001      FY00: \$47,100      Total: \$47,100  
Prin. Invest.: S RAFKIN  
Tech. Officer: GSFC/D BOGAN  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9766**      **SAN JOSE STATE UNIVERSITY**      **1904**  
LARGE-SCALE WAVE ACTIVITY IN A MARS GENERAL CIRCULATION  
MODEL: CHARACTERIZATION & COMPARISON WITH  
06/29/2000 - 06/30/2001      FY00: \$37,900      Total: \$37,900  
Prin. Invest.: A BRIDGER  
Tech. Officer: GSFC/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 8 1735**      **SAN JOSE STATE UNIVERSITY**      **1905**  
URBAN EFFECT ON THUNDERSTORMS  
08/04/2000 - 08/03/2001      FY00: \$50,000      Total: \$50,000  
Prin. Invest.: R BORNSTEIN  
Tech. Officer: MSFC/D QUATTROCHI  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 8 97106** **SAN JOSE STATE UNIVERSITY** **1906**  
 R/S IMPACTS OF URBAN GROWTH ON REGIONAL CLIMATE AND AIR  
 QUALITY  
 11/19/1996 - 02/28/2000 FY00: \$0 Total: \$89,627  
*Prin. Invest.:* R BORSTEIN  
*Tech. Officer:* MSFC/T MILLER  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 168** **SAN JOSE STATE UNIVERSITY** **1907**  
 EXPERIMENTAL STUDIES OF THE DISTRIBUTION OF MINOR CONSTITU-  
 ENTS IN THE ATMOSPHERE  
 01/01/1982 - 03/31/1999 FY00: -\$9,894 Total: \$2,679,673  
*Prin. Invest.:* J GOODMAN  
*Tech. Officer:* ARC/R L CHAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 327** **SAN JOSE STATE UNIVERSITY** **1908**  
 AERO-SPACE HUMAN FACTORS  
 10/01/1984 - 01/31/1999 FY00: \$0 Total: \$13,691,076  
*Prin. Invest.:* K JORDAN, K JORDAN  
*Tech. Officer:* ARC/R K DISMUKES  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NCC 2 798** **SAN JOSE STATE UNIVERSITY** **1909**  
 FLIGHT HUMAN FACTORS  
 05/12/1993 - 05/31/2000 FY00: \$390,799 Total: \$10,321,668  
*Prin. Invest.:* K P JORDAN, D  
*Tech. Officer:* ARC/R K DISMUKES  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NCC 2 955** **SAN JOSE STATE UNIVERSITY** **1910**  
 ATMOSPHERIC DYNAMICS ON VENUS JUPITER AND SATURN - AN  
 OBSERVATIONAL & ANALYTICAL STUDY  
 06/24/1996 - 04/30/2000 FY00: \$46,425 Total: \$377,364  
*Prin. Invest.:* A C BRIDGER  
*Tech. Officer:* ARC/R E YOUNG  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 960** **SAN JOSE STATE UNIVERSITY** **1911**  
 STELLAR PROJECT  
 07/22/1996 - 01/31/2000 FY00: \$0 Total: \$964,651  
*Prin. Invest.:* A RODRIGUEA  
*Tech. Officer:* ARC/K C SABLON, ARC/B A CORBIN  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 2 984** **SAN JOSE STATE UNIVERSITY** **1912**  
 DYNAMIS OF RINGS & SMALL BODIES  
 04/01/1997 - 02/28/2001 FY00: \$7,000 Total: \$220,335  
*Prin. Invest.:* P J HAMILL  
*Tech. Officer:* ARC/K ZAHALE  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 1015** **SAN JOSE STATE UNIVERSITY** **1913**  
 INTEGRATING LEGACY APPLICATIONS WITHIN A MIDDLEWARE ENVIRON-  
 NMENT  
 02/01/1998 - 01/31/2001 FY00: \$25,000 Total: \$169,814  
*Prin. Invest.:* R FATOOHI, D HARKEY, NONE  
*Tech. Officer:* ARC/M E LIVINGSTON, ARC/D KAWAK  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 1022** **SAN JOSE STATE UNIVERSITY** **1914**  
 COUNTERACTING MUSCLE ATROPHY USING GALVANIC STIMUL ATION OF  
 THE VESTIBULAR SYSTEM  
 02/26/1998 - 01/31/1999 FY00: -\$25 Total: \$59,914  
*Prin. Invest.:* R A FOX, I POLYAKOV  
*Tech. Officer:* ARC/M L CORCORAN, ARC/N G DAUTON  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 1043** **SAN JOSE STATE UNIVERSITY** **1915**  
 LIMITATIONS OF HUMAN INFORMATION PROCESSING  
 06/18/1998 - 07/31/2000 FY00: \$11,300 Total: \$40,000  
*Prin. Invest.:* M VAN SELST  
*Tech. Officer:* ARC/R W REMINGTON, ARC/J C JOHNSTON  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NCC 2 1045** **SAN JOSE STATE UNIVERSITY** **1916**  
 AIRBORNE MEASUREMENT RESEARCH  
 06/30/1998 - 06/30/2001 FY00: \$0 Total: \$141,145  
*Prin. Invest.:* J GOODMAN  
*Tech. Officer:* ARC/PBUI  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 1059** **SAN JOSE STATE UNIVERSITY** **1917**  
 RESEARCH ON PLANETARY ATMOSPHERES & STMOSPHERE PRO BES  
 07/27/1998 - 09/14/2000 FY00: \$46,230 Total: \$224,021  
*Prin. Invest.:* A SEIFF, J GOODMAN  
*Tech. Officer:* ARC/R E YOUNG  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 1060** **SAN JOSE STATE UNIVERSITY** **1918**  
 SOLAR WIND STUDIES & AI TECHNOLOGIES  
 08/11/1998 - 10/31/2000 FY00: \$82,262 Total: \$239,966  
*Prin. Invest.:* P J HAMILL  
*Tech. Officer:* ARC/A BARNES  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 2 1071** **SAN JOSE STATE UNIVERSITY** **1919**  
 ASSESSMENT OF DISTRIBUTED OBJECT MIDDLEWARE  
 11/16/1998 - 04/30/2001 FY00: \$0 Total: \$174,997  
*Prin. Invest.:* R FATOOHI  
*Tech. Officer:* ARC/T A LASINSKI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 1091** **SAN JOSE STATE UNIVERSITY** **1920**  
 REGIONAL & GLOBAL MODELING OF ATMOSPHERIC TRACE SP ECIES  
 03/01/1999 - 09/30/2001 FY00: \$49,000 Total: \$140,236  
*Prin. Invest.:* P A HAMILL  
*Tech. Officer:* ARC/R B CHATFIELD, ARC/E P CONDON  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 1095** **SAN JOSE STATE UNIVERSITY** **1921**  
 HUMAN FACTORS RESEARCH, TEHCNOLOGY & SAFETY  
 03/11/1999 - 01/31/2001 FY00: \$2,435,364 Total: \$3,919,580  
*Prin. Invest.:* K P JORDAN  
*Tech. Officer:* ARC/R K DISMUKES, ARC/C H NULL  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1096** **SAN JOSE STATE UNIVERSITY** **1922**  
EFFECTS OF CHRONIC EXPOSURE TO HYPER GRAVITY ON DIFFERENT  
STRAINS OF YOUNG & MATURE RATS  
03/11/1999 - 01/31/2001 FY00: \$27,506 Total: \$169,868  
Prin. Invest.: R A FOX  
Tech. Officer: ARC/N G DAUNTON  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 1097** **SAN JOSE STATE UNIVERSITY** **1923**  
FLIGHT MANAGEMENT & AIR TRAFFIC MODELING  
03/19/1999 - 01/31/2001 FY00: \$851,291 Total: \$1,295,467  
Prin. Invest.: K P JORDAN  
Tech. Officer: ARC/B D MCNALLY  
CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 1106** **SAN JOSE STATE UNIVERSITY** **1924**  
EXPERIMENTAL STUDIES OF THE DISTRIBUTION OF & INTERACTION  
BETWEEN REACTIVE TRACE CHEMICALS WITH DYN  
04/12/1999 - 03/31/2001 FY00: \$261,986 Total: \$479,371  
Prin. Invest.: J GOODMAN  
Tech. Officer: ARC/P BUI, ARC/E P CONDON  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 1132** **SAN JOSE STATE UNIVERSITY** **1925**  
THE INFLUENCE OF THE ATMOSPHERE ON POLARIZED BI-DIRECTIONAL  
REFLECTANCE DATA OF BOREAL WETLANDS  
08/17/1999 - 12/31/2000 FY00: \$20,000 Total: \$31,000  
Prin. Invest.: P A HAMILL, U BOTTLER  
Tech. Officer: ARC/V VANDERBILT  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 1136** **SAN JOSE STATE UNIVERSITY** **1926**  
SUPPORTING STUDIES FOR HARDWARE DEVELOPMENT & SCIENTIFIC  
EVALUATION OF HARDWARE  
09/01/1999 - 10/31/2000 FY00: -\$140 Total: \$28,946  
Prin. Invest.: D C HOLLEY  
Tech. Officer: ARC/M F VASQUES, ARC/S PATTERSON  
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1155** **SAN JOSE STATE UNIVERSITY** **1927**  
FLIGHT HUMAN FACTORS  
02/02/2000 - 10/31/2000 FY00: \$1,371,993 Total: \$1,371,993  
Prin. Invest.: K JORDON  
Tech. Officer: ARC/RJ DISMUKES  
CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1168** **SAN JOSE STATE UNIVERSITY** **1928**  
PLANETARY ATMOSPHERIC STRUCTURE FROM SPACECRAFT DATA  
03/29/2000 - 11/30/2000 FY00: \$90,429 Total: \$90,429  
Prin. Invest.: A BRIDGER  
Tech. Officer: ARC/R E YOUNG  
CASE Category: 11 - ASTRONOMY

**NCC 2 5230** **SAN JOSE STATE UNIVERSITY** **1929**  
SEASONAL WATER TRANSPORT IN THE ATMOSPHERE OF MARS APPLICATIONS  
OF A MARS GLOBAL SURVEYOR DATA  
08/18/1997 - 11/30/1999 FY00: -\$2,103 Total: \$113,701  
Prin. Invest.: A F BRIDGER, J L HOLLINGSWORTH  
Tech. Officer: ARC/R M HABERLE  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5234** **SAN JOSE STATE UNIVERSITY** **1930**  
MINIATURE LASER SPECTROMETER FOR STABLE ISOTOPE  
MEASUREMENTS  
08/12/1997 - 08/31/1999 FY00: \$0 Total: \$72,515  
Prin. Invest.: J F BECKER  
Tech. Officer: ARC/D KOIHO  
CASE Category: 12 - CHEMISTRY

**NCC 2 5248** **SAN JOSE STATE UNIVERSITY** **1931**  
A SIMULATION TO STUDY SPEED DISTRIBUTION IN A SOLAR PLASMA  
12/04/1997 - 09/30/1999 FY00: -\$1,709 Total: \$99,206  
Prin. Invest.: P HAMILL  
Tech. Officer: ARC/K SWANSON  
CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5280** **SAN JOSE STATE UNIVERSITY** **1932**  
MARS WIND & SURFACE TEMPERATURE MODELS  
07/17/1998 - 01/31/1999 FY00: -\$24 Total: \$26,508  
Prin. Invest.: A C BRIDGER  
Tech. Officer: ARC/R M HABERLE  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5305** **SAN JOSE STATE UNIVERSITY** **1933**  
DETERMINATION OF LIMITING SPECIMAN SIZE FOR ANALYTICAL &  
EXPERIMENTAL ANALYSES OF DUCTILE CRACK ...  
01/13/1999 - 12/31/1999 FY00: \$0 Total: \$8,322  
Prin. Invest.: M A LAMBERT  
Tech. Officer: ARC/T L PANONTIN  
CASE Category: 49 - ENGINEERING, OTHER

**NCC 2 5311** **SAN JOSE STATE UNIVERSITY** **1934**  
EXTROMYCORRHIZAE ECOLOGY IN YELLOWSTONE PARK  
03/17/1999 - 01/31/2002 FY00: \$38,400 Total: \$78,220  
Prin. Invest.: C A BRINEGAR  
Tech. Officer: ARC/K W CULLINGS, ARC/M L FONDA  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5326** **SAN JOSE STATE UNIVERSITY** **1935**  
ASSIMILATION OF MGS DATA INTO A COUPLED GCM-MESOSCALE MODEL  
OF THE MARTIAN ATMOSPHERE  
06/01/1999 - 02/28/2001 FY00: \$13,109 Total: \$26,209  
Prin. Invest.: S S RAFKIN  
Tech. Officer: ARC/R M HABERLE  
CASE Category: 11 - ASTRONOMY

**NCC 2 5330** **SAN JOSE STATE UNIVERSITY** **1936**  
INVESTIGATION OF MARS' ATMOSPHERIC CONDITIONS IN CONNECTION  
WITH AEROBRKING & AEROCAPTURE ACTIVITY  
07/08/1999 - 08/31/2001 FY00: \$17,993 Total: \$39,018  
Prin. Invest.: A C BRIDGER  
Tech. Officer: ARC/R M HABERLE  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5336** **SAN JOSE STATE UNIVERSITY** **1937**  
AN INVESTIGATION OF CYCLO-FRONT-CENESIS MARS' ATMOSPHERE  
07/20/1999 - 12/31/2000 FY00: \$80,605 Total: \$120,605  
Prin. Invest.: J L HOLLINGSWORTH  
Tech. Officer: ARC/R M HABERLE  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5338**                      **SAN JOSE STATE UNIVERSITY**                      **1938**  
 FAR INFRARED EMISSION FROM GALACTIC & EXTRAGALACTIC  
 INTERSTELLAR GAS  
 07/23/1999 - 07/31/2001                      FY00: \$15,793                      Total: \$47,034  
*Prin. Invest.:* M J KAUFMAN  
*Tech. Officer:* ARC/D J HOLLEN  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 5344**                      **SAN JOSE STATE UNIVERSITY**                      **1939**  
 ASTROBIOLOGY RAPID RATES OF CHANGE  
 08/12/1999 - 07/31/2001                      FY00: \$10,000                      Total: \$20,000  
*Prin. Invest.:* E P METZGER  
*Tech. Officer:* ARC/H L D'ANTONI  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 2 5347**                      **SAN JOSE STATE UNIVERSITY**                      **1940**  
 VOLATILE OXYGENATED HYDROCARBONS - ANALYTICAL SYSTEM  
 DEVELOPMENT & TROPOSPHERIC ATMOSPHERIC CHEMIST  
 09/01/1999 - 01/31/2000                      FY00: \$0                      Total: \$30,000  
*Prin. Invest.:* P A HAMMILL  
*Tech. Officer:* ARC/H B SINGH, ARC/E P CONDON  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 5353**                      **SAN JOSE STATE UNIVERSITY**                      **1941**  
 CLOUD TRANSPORT OF TROPICAL GASES & AEROSOLS  
 09/21/1999 - 05/31/2001                      FY00: \$30,905                      Total: \$57,905  
*Prin. Invest.:* S C RAFKIN  
*Tech. Officer:* ARC/R B CHATFIELD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 6042**                      **SAN JOSE STATE UNIVERSITY**                      **1942**  
 STELLAR 2000  
 03/03/2000 - 02/28/2001                      FY00: \$195,500                      Total: \$195,500  
*Prin. Invest.:* A RODRIGUEZ  
*Tech. Officer:* ARC/K SABLAN  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NGT 2 52262**                      **SAN JOSE STATE UNIVERSITY**                      **1943**  
 SUMMER FACULTY RESEARCH FELLOWSHIP PROGRAM  
 03/31/2000 - 03/31/2001                      FY00: \$405,551                      Total: \$405,551  
*Prin. Invest.:* B STONE  
*Tech. Officer:* ARC/M MOORE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50115**                      **SAN JOSE STATE UNIVERSITY**                      **1944**  
 GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: C  
 09/02/1997 - 07/31/1999                      FY00: \$0                      Total: \$44,000  
*Prin. Invest.:* S WHITE  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9736**                      **SANTA CLARA UNIVERSITY**                      **1945**  
 DISTRIBUTED SPACE SYSTEM TECHNOLOGY DEMONSTRATIONS WITH THE  
 EMERALD NANOSATELLITE  
 06/22/2000 - 06/30/2001                      FY00: \$25,000                      Total: \$25,000  
*Prin. Invest.:* C A KITTS  
*Tech. Officer:* GSFC/K LUU  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 1025**                      **SANTA CLARA UNIVERSITY**                      **1946**  
 EVALUATING THE EFFECTS OF MAINTENANCE RESOURCE MANAGEMENT  
 IN AIR SAFETY  
 03/02/1998 - 01/31/2000                      FY00: \$0                      Total: \$399,987  
*Prin. Invest.:* J C TAYLOR  
*Tech. Officer:* ARC/B G KANKI, ARC/M M CONNORS  
*CASE Category:* 62 - PSYCHOLOGY SOCIAL ASPECTS

**NCC 2 1156**                      **SANTA CLARA UNIVERSITY**                      **1947**  
 EVALUATING BEHAVIORAL-BASED APPROACHES TO CHANGING SAFETY  
 CULTURE IN AVIATION MAINTENANCE  
 02/25/2000 - 11/30/2000                      FY00: \$145,524                      Total: \$145,524  
*Prin. Invest.:* J TAYLOR  
*Tech. Officer:* ARC/B KANKI  
*CASE Category:* 62 - PSYCHOLOGY SOCIAL ASPECTS

**NCC 2 1195**                      **SANTA CLARA UNIVERSITY**                      **1948**  
 SHARP DEMONSTRATION FLIGHT: VIDEO BROADCAST SYSTEM FOR  
 RESEARCH IN INTELLIGENT FLIGHT CHARACTERIZATION  
 08/24/2000 - 09/30/2000                      FY00: \$13,300                      Total: \$13,300  
*Prin. Invest.:* C A KITTS  
*Tech. Officer:* ARC/P KOLODZIEJ, ARC/S M JOHNSON  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NCC 2 5250**                      **SANTA CLARA UNIVERSITY**                      **1949**  
 APPLICATION OF FIRST ORDER EXPANSIONS TO TRAJECTORY OPTIMIZATION  
 OF TRANSPORT AIRCRAFT  
 01/12/1998 - 03/31/1999                      FY00: -\$27                      Total: \$51,247  
*Prin. Invest.:* M ARDEMA  
*Tech. Officer:* ARC/J D PHILLIPS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 7267**                      **SONOMA STATE UNIVERSITY**                      **1950**  
 GLAST MISSION CONCEPT STUDY AND PUBLIC OUTREACH  
 06/29/1998 - 01/31/2000                      FY00: \$0                      Total: \$45,000  
*Prin. Invest.:* D COMINSKY  
*Tech. Officer:* GSFC/N GEHRELS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8603**                      **SONOMA STATE UNIVERSITY**                      **1951**  
 SWIFT EDUCATION AND PUBLIC OUTREACH  
 06/23/1999 - 12/31/2000                      FY00: \$20,000                      Total: \$61,936  
*Prin. Invest.:* L R COMINSKY  
*Tech. Officer:* GSFC/N GEHRELS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9495**                      **SONOMA STATE UNIVERSITY**                      **1952**  
 SWIFT: A PANCHROMATIC GAMMA RAY BURST MIDEX MISSION  
 04/19/2000 - 01/31/2001                      FY00: \$202,434                      Total: \$202,434  
*Prin. Invest.:* L WHITLOCK  
*Tech. Officer:* GSFC/A PARSONS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9782**                      **SONOMA STATE UNIVERSITY**                      **1953**  
 SWIFT PUBLIC RELATIONS - PART 1  
 07/06/2000 - 09/30/2000                      FY00: \$12,072                      Total: \$12,072  
*Prin. Invest.:* L R COMINSKY  
*Tech. Officer:* GSFC/N GEHRELS  
*CASE Category:* 11 - ASTRONOMY



**NCC 5 429 SONOMA STATE UNIVERSITY 1954**  
 SPACE MYSTERIES: INQUIRY-DRIVEN WEB EXPLORATIONS THAT TEACH  
 PHYSICAL SCIENCE & MATHEMATICS STANDARD  
 09/29/1999 - 09/30/2001 FY00: \$139,468 Total: \$249,468  
*Prin. Invest.:* L COMINSKY *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/D GABRYS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2056 STANFORD UNIVERSITY 1955**  
 AN EXPANDED TEST PROGRAM FOR THE BLENDED WING BODY 17 (BWB  
 17) FLIGHT CONTROL TESTBED  
 04/14/1998 - 01/31/1999 FY00: -\$283 Total: \$84,727  
*Prin. Invest.:* I M KROO  
*Tech. Officer:* LARC/D G MURRI  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2107 STANFORD UNIVERSITY 1956**  
 DEVELOPMENT OF A COMPOSITE DAMAGE MODULE FOR THE STAGS  
 FINITE ELEMENT CODE  
 09/03/1998 - 06/02/2001 FY00: \$23,300 Total: \$140,000  
*Prin. Invest.:* F K CHANG, NONE  
*Tech. Officer:* LARC/J H STARNES, JR., LARC/P B BOGERT  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2144 STANFORD UNIVERSITY 1957**  
 BLENDED-WING-BODY DESIGN FOR ENHANCED ENVIRONMENTAL  
 ACCEPTABILITY  
 03/23/1999 - 12/31/2001 FY00: \$114,507 Total: \$233,455  
*Prin. Invest.:* I KROO  
*Tech. Officer:* LARC/R R ANTCLIFF  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 891 STANFORD UNIVERSITY 1958**  
 "AN INTEGRATED ENVIRONMENT FOR EFFICIENT FORMAL DESIGN AND  
 VERIFICATION"  
 03/28/1994 - 12/31/1998 FY00: \$0 Total: \$2,542,281  
*Prin. Invest.:* D L DILL  
*Tech. Officer:* ARC/S LAU  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1065 STANFORD UNIVERSITY 1959**  
 HEALTH MONITORING OF HELICOPTER TRANSMISSION USING ADAPTIVE  
 SIGNAL PROCESSING OF GEARBOX  
 07/15/1996 - 05/31/1999 FY00: -\$121 Total: \$99,889  
*Prin. Invest.:* T H MENG  
*Tech. Officer:* ARC/E M HUFF  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1079 STANFORD UNIVERSITY 1960**  
 INFRARED SIGNATURE MASKING BY AIR PLASMA RADIATION  
 08/23/1996 - 10/31/2000 FY00: \$0 Total: \$221,719  
*Prin. Invest.:* C H KRUGER, C O LAUX  
*Tech. Officer:* ARC/W M HUO  
*CASE Category:* 13 - PHYSICS

**NAG 2 1141 STANFORD UNIVERSITY 1961**  
 PROPOSAL FOR RESEARCH ON UNSTRUCTURED MESH METHODS FOR  
 AERODYNAMIC ANALYSIS & DESIGN  
 07/21/1997 - 03/31/1999 FY00: \$0 Total: \$98,472  
*Prin. Invest.:* G A JAMESON, J J ALSON  
*Tech. Officer:* ARC/S E CLIFF, ARC/D D MBENCZE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 1219 STANFORD UNIVERSITY 1962**  
 ACTIVE CONTROL OF COMBUSTION INSTABILITY IN AIR-BR EATING  
 PROPULSION SYSTEMS - A COMPUTATIONAL & ..  
 05/19/1998 - 04/30/2001 FY00: \$912,285 Total: \$1,337,285  
*Prin. Invest.:* C T BOWMAN, C F EDWARDS, G RVETSCH  
*Tech. Officer:* ARC/N N MANSOUR, ARC/A A WRAY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 1257 STANFORD UNIVERSITY 1963**  
 GENERATION & CONSERVATION OF DESIGN KNOWLEDGE: NEW MILLEN-  
 NIUM  
 08/24/1998 - 02/14/2000 FY00: \$0 Total: \$150,000  
*Prin. Invest.:* L J LEIFFER  
*Tech. Officer:* ARC/W J CLANCY  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1259 STANFORD UNIVERSITY 1964**  
 THE STRUCTURE & CHEMISTRY OF HIGH DENSITY INDUCTIVELY  
 COUPLED PLASMA DISCHARGES USED IN MICROELECTRONICS  
 08/26/1998 - 02/29/2000 FY00: \$0 Total: \$121,170  
*Prin. Invest.:* M A CAPPELLI  
*Tech. Officer:* ARC/S P SHARMA  
*CASE Category:* 13 - PHYSICS

**NAG 2 1330 STANFORD UNIVERSITY 1965**  
 DEVELOPMENT & DEMONSTRATION OF SELF-CALIBRATING PS EUDOLITE  
 ARRAY FOR TASK LEVEL CONTROL OF A PLANET  
 06/21/1999 - 11/30/1999 FY00: \$0 Total: \$99,865  
*Prin. Invest.:* S M ROCK  
*Tech. Officer:* ARC/H THOMAS, ARC/M BUALAT  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1337 STANFORD UNIVERSITY 1966**  
 ENVIRONMENTAL MONITORING FOR SITUATION ASSESSMENT USING  
 MOBILE & FIXED SENSORS  
 07/13/1999 - 12/31/2000 FY00: \$160,000 Total: \$330,973  
*Prin. Invest.:* R E FIKES  
*Tech. Officer:* ARC/J A KURIEN, ARC/S LAU  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1354 STANFORD UNIVERSITY 1967**  
 ROLE OF ADRENERGIC RECEPTORS IN ADAPTATION TO MICROGRAVITY:  
 GENE TARGETED MICE AS A MODEL OF MICROGRAVITY  
 07/21/1999 - 12/15/2000 FY00: \$246,799 Total: \$396,796  
*Prin. Invest.:* D BERSTEIN, B K KOBILKA  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIRONMENTAL)

**NAG 2 1373 STANFORD UNIVERSITY 1968**  
 HIGH SPEED JET NOISE PREDICTION USING LARGE EDDY SIMULATIONS  
 08/11/1999 - 07/31/2001 FY00: \$25,000 Total: \$74,702  
*Prin. Invest.:* S K LELE, B I VASHI  
*Tech. Officer:* ARC/D KWAK  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 1397 STANFORD UNIVERSITY 1969**  
 EVALUATION OF CHEMICAL KINETICS AND PHOTOCHEMICAL DATA FOR  
 USE IN STRATOSPHERIC MODELING  
 02/17/2000 - 01/14/2001 FY00: \$60,032 Total: \$60,032  
*Prin. Invest.:* C T BOWMAN  
*Tech. Officer:* ARC/E CONDON  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 3 1843** **STANFORD UNIVERSITY** **1970**  
 DROP BREAKUP IN FLOW THROUGH FLUXED BEDS AS MODEL STOCHASTIC STRONG FLOWS  
 05/20/1996 - 04/18/2001 FY00: \$94,000 Total: \$480,000  
 Prin. Invest.: E G SHAQTEH  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 1887** **STANFORD UNIVERSITY** **1971**  
 THE INFLUENCES OF GRAVITY OF COLLOIDAL CRYSTALLIZATION AND FIELD-INDUCED AGGREGATION  
 05/29/1996 - 06/30/2000 FY00: \$60,000 Total: \$400,000  
 Prin. Invest.: D A RUFF  
 Tech. Officer: GRC/D D ROSS, GRC/M A SAKSTEDTER  
 CASE Category: 13 - PHYSICS

**NAG 3 1943** **STANFORD UNIVERSITY** **1972**  
 PROBLEMS IN MICROGRAVITY FLUID MECHANICS: THERMO CAPILLARY INSTABILITIES & G-JITTER CONVECTION  
 09/03/1996 - 02/28/2001 FY00: \$0 Total: \$385,000  
 Prin. Invest.: G M HOMSY  
 Tech. Officer: GRC/J C DUH  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2398** **STANFORD UNIVERSITY** **1973**  
 ANISOTROPIC COLLOIDAL SELF ASSEMBLY ANISOTROPIC COLLOIDAL SELF ASSEMBLY  
 04/19/2000 - 11/30/2003 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: A P GAST  
 Tech. Officer: GRC/J H AGUI  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2446** **STANFORD UNIVERSITY** **1974**  
 MICROGRAVITY FLUID MECHANICS: G-JITTER CONVECTION AND THE MECHANICS OF FLUIDIZED BEDS  
 05/26/2000 - 11/30/2003 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: G M HOMSY  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3077** **STANFORD UNIVERSITY** **1975**  
 SOLAR OSCILLATIONS INVESTIGATION - MISSION OBSERVATIONS AND DATA ANALYSIS  
 09/25/1995 - 03/14/2000 FY00: \$0 Total: \$22,111,632  
 Prin. Invest.: P SCHERRER  
 Tech. Officer: GSFC/J GURMAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3102** **STANFORD UNIVERSITY** **1976**  
 RELATIVISTIC DISKOSISMOLGY  
 10/05/1995 - 09/30/1999 FY00: \$0 Total: \$180,000  
 Prin. Invest.: R V WAGONER  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3263** **STANFORD UNIVERSITY** **1977**  
 HIGH ENERGY RADIATION FROM ROTATION - POWERED PULSARS (NO COST TIME EXTENSION)  
 07/01/1996 - 04/30/2000 FY00: \$0 Total: \$131,083  
 Prin. Invest.: R W ROMANI  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3441** **STANFORD UNIVERSITY** **1978**  
 DIGITAL TOPOGRAPHY PROPOSAL: LONG TERM MONITORING OF EARTH SURFACE CHANGE WITH ERS-1 AND ERS-2....  
 01/11/1997 - 10/14/2001 FY00: \$0 Total: \$164,472  
 Prin. Invest.: H ZEBKER  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3732** **STANFORD UNIVERSITY** **1979**  
 TOPOGRAPHIC MAPPING IN THE ANTARCTIC ENVIRONMENT USING INTERFEROMETRY  
 02/14/1997 - 02/29/2000 FY00: \$8,772 Total: \$170,406  
 Prin. Invest.: D ZEBKER  
 Tech. Officer: GSFC/R H THOMAS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3775** **STANFORD UNIVERSITY** **1980**  
 DEVELOPMENT OF LOW TEMPERATURE WIDE BAND HIGH SPEED  
 02/13/1997 - 02/14/2000 FY00: \$0 Total: \$348,000  
 Prin. Invest.: P CABRERA  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3906** **STANFORD UNIVERSITY** **1981**  
 RADAR STUDIES OF LUNAR AND PLANETARY SURFACES  
 02/21/1997 - 10/31/2000 FY00: \$59,850 Total: \$239,850  
 Prin. Invest.: G TYLER  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4038** **STANFORD UNIVERSITY** **1982**  
 PHYSICS OF SOLAR ACTIVITY  
 02/26/1997 - 08/31/2000 FY00: \$27,480 Total: \$226,777  
 Prin. Invest.: D A STURROCK  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 4321** **STANFORD UNIVERSITY** **1983**  
 RADIO OCCULTATION STUDIES OF VENUS' ATMOSPHERE WITH  
 04/04/1997 - 12/31/1998 FY00: -\$30 Total: \$37,470  
 Prin. Invest.: P L TYLER  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4322** **STANFORD UNIVERSITY** **1984**  
 RESEARCH PLANETARY ATMOSPHERES  
 04/04/1997 - 12/31/1999 FY00: -\$18,955 Total: \$196,045  
 Prin. Invest.: D R ESHLEMAN  
 Tech. Officer: GSFC/J BERGSTRAHL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4554** **STANFORD UNIVERSITY** **1985**  
 PITCH ANGLE SCATTERING AND PRECIPITATION OF RADIATION OBLIQUE WHISTLER WAVES  
 05/05/1997 - 11/14/2000 FY00: \$0 Total: \$188,000  
 Prin. Invest.: D S INAN  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 13 - PHYSICS

**NAG 5 4888** **STANFORD UNIVERSITY** **1986**  
 THE WHITE-INYO MOUNTAINS, EASTERN CALIFORNIA: INFL ALTITUDE ON  
 SOIL DEVELOPMENT AND BOTANICAL COVER  
 08/08/1997 - 06/30/2000 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* G ERNST  
*Tech. Officer:* GSFC/M BALTUCK  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4936** **STANFORD UNIVERSITY** **1987**  
 SEARCH FOR UNIQUE ORGANIC BIOMARKERS IN ALH 84001  
 06/23/1997 - 05/31/1999 FY00: -\$938 Total: \$154,062  
*Prin. Invest.:* R N ZARE  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 5109** **STANFORD UNIVERSITY** **1988**  
 DEVELOPMENT OF GLAST, A BROADBAND HIGH-ENERGY GAMMA-RAY  
 TELESCOPE  
 02/19/1997 - 09/30/2000 FY00: \$0 Total: \$1,304,422  
*Prin. Invest.:* P F MICHELSON  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5200** **STANFORD UNIVERSITY** **1989**  
 INVESTIGATION OF THE CORONA/CHROMOSPHERE INTERFACE WITH THE  
 CHROMOSPHERIC/CORONAL SPECTROHELIOGRAPH  
 05/28/1998 - 05/31/2001 FY00: \$0 Total: \$466,460  
*Prin. Invest.:* A B WALKER  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5300** **STANFORD UNIVERSITY** **1990**  
 INVESTIGATION OF CHROMOSPHERIC AND CORONAL STRUCTURES WITH  
 ADVANCED TECHNOLOGY SOLAR IMAGER  
 07/18/2000 - 07/17/2003 FY00: \$234,816 Total: \$234,816  
*Prin. Invest.:* B C WALKER  
*Tech. Officer:* HQ/J C BRINTON  
*CASE Category:* 13 - PHYSICS

**NAG 5 6112** **STANFORD UNIVERSITY** **1991**  
 STRUCTURE OF SOLAR MAGNETIC AND VELOCITY FIELDS  
 07/28/1997 - 06/30/2000 FY00: \$0 Total: \$263,576  
*Prin. Invest.:* D H SCHERRER  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6148** **STANFORD UNIVERSITY** **1992**  
 SURFACE DEFORMATION AND TOPOGRAPHIC MEASUREMENTS FROM THE  
 PRESENCE OF VEGETATION  
 08/21/1997 - 08/31/2001 FY00: \$50,000 Total: \$196,919  
*Prin. Invest.:* H A ZEBKER  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 6167** **STANFORD UNIVERSITY** **1993**  
 INVERSION OF TIME DEPENDENT SPACE GEODETIC DATA  
 08/01/1997 - 06/30/2001 FY00: \$104,041 Total: \$306,043  
*Prin. Invest.:* P SEGALL  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 6233** **STANFORD UNIVERSITY** **1994**  
 ADVANCED ALGORITHM DEVELOPMENT FOR SPACE-BASED GP INCRE-  
 MENTALLY FUNDED FY 97 AND 98  
 09/18/1997 - 03/31/2000 FY00: \$0 Total: \$702,566  
*Prin. Invest.:* J P HOW  
*Tech. Officer:* GSFC/J CROFT  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 5 6264** **STANFORD UNIVERSITY** **1995**  
 HEATING, IONIZATION AND RED SPRITES PRODUCED IN THE QUASI ELEC-  
 TROSTATIC THUNDERCLOUD FIELDS  
 08/21/1997 - 05/31/2000 FY00: -\$3,654 Total: \$196,389  
*Prin. Invest.:* D S INAN  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6537** **STANFORD UNIVERSITY** **1996**  
 CENTER OF EXCELLENCE FOR INTEGRATED INSAR AND GPS STUDIES OF  
 NATURAL HAZARDS AND LAND SUBSIDENCE  
 10/24/1997 - 09/30/1999 FY00: -\$22 Total: \$105,978  
*Prin. Invest.:* P SEGALL  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6615** **STANFORD UNIVERSITY** **1997**  
 LAND-USE AND LAND-COVER CHANGE IN SONORA, MEXICO  
 11/17/1997 - 05/14/2001 FY00: \$52,200 Total: \$334,383  
*Prin. Invest.:* P MATSON  
*Tech. Officer:* GSFC/A JANETOS  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 6655** **STANFORD UNIVERSITY** **1998**  
 UPLINK RADIO INSTRUMENT DEVELOPMENT  
 12/24/1997 - 11/30/2000 FY00: \$0 Total: \$318,651  
*Prin. Invest.:* G TYLER  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7144** **STANFORD UNIVERSITY** **1999**  
 STUDIES OF THE IMPULSIVE PHASE OF SOLAR FLARE: BA SIC MECH-  
 ANISM AND PARAMETER DISTRIBUTIONS  
 04/20/1998 - 04/14/2001 FY00: \$76,807 Total: \$194,437  
*Prin. Invest.:* V PETROSIAN  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7208** **STANFORD UNIVERSITY** **2000**  
 CHEMICAL AND ISOTOPIC ANALYSIS OF TRACE ORGANIC MATTER ON  
 METEORITES AND INTERSTELLAR DUSTING  
 03/25/1998 - 07/31/2001 FY00: \$79,000 Total: \$239,000  
*Prin. Invest.:* R ZARE  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7367** **STANFORD UNIVERSITY** **2001**  
 SUPPORT FOR WORKSHOP ON GLOBAL CHANGE AND INVASIVE SPECIES  
 05/04/1998 - 05/14/1999 FY00: -\$364 Total: \$29,636  
*Prin. Invest.:* H A MOONEY  
*Tech. Officer:* GSFC/A C JANETOS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7464**                      **STANFORD UNIVERSITY**                      **2002**  
 A TRANSITION EDGE MICROCALORIMETER SPECTROMETER FOR THE EUV AND FUV  
 11/30/1998 - 12/31/2000                      FY00: \$69,708                      Total: \$154,708  
*Prin. Invest.:* A C WALKER, JR., NONE  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7468**                      **STANFORD UNIVERSITY**                      **2003**  
 XTE PROPOSAL (30043) - ENERGY DEPENDENCE OF MILLIS ECOND TIMING PHENOMENA IN THE Z-SOURCE  
 06/02/1998 - 08/31/1999                      FY00: -\$413                      Total: \$9,490  
*Prin. Invest.:* P F MICHELSON  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7535**                      **STANFORD UNIVERSITY**                      **2004**  
 FAST TIMING STUDIES OF GX 340+0 - XTE PROPOSAL (20 059)  
 06/26/1998 - 12/31/1999                      FY00: \$0                      Total: \$22,820  
*Prin. Invest.:* P MICHELSON  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7609**                      **STANFORD UNIVERSITY**                      **2005**  
 ABUNDANCES OF CALCIUM-41 AND HAFNIUM-182 IN THE EARLY SOLAR SYSTEM  
 07/27/1998 - 07/31/2000                      FY00: \$0                      Total: \$80,000  
*Prin. Invest.:* T IRELAND  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7709**                      **STANFORD UNIVERSITY**                      **2006**  
 LASER DIODE PUMPED YB:YAG SOLID-STATE LASERS FOR SPACE-BASED APPLICATIONS  
 09/22/1998 - 09/30/1999                      FY00: \$0                      Total: \$50,000  
*Prin. Invest.:* R BYER  
*Tech. Officer:* GSFC/J BUFTON  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 7835**                      **STANFORD UNIVERSITY**                      **2007**  
 THE INTERFACE OF TRANSITION REGION AND CORONAL PLASMAS WITH THE CHROMOSPHERIC NETWORK  
 12/14/1998 - 12/14/2000                      FY00: \$80,414                      Total: \$157,792  
*Prin. Invest.:* A B WALKER  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7874**                      **STANFORD UNIVERSITY**                      **2008**  
 DISTRIBUTION AND CORRELATIONS OF FLUXES, FLUENCES, DURATIONS, AND SPECTRA OF GAMMA RAY BURSTS  
 11/30/1998 - 11/30/1999                      FY00: -\$119                      Total: \$9,976  
*Prin. Invest.:* V PETROSIAN  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8025**                      **STANFORD UNIVERSITY**                      **2009**  
 SEPS/CEPPAD SCIENCE INVESTIGATION  
 01/12/1999 - 12/31/2000                      FY00: \$30,000                      Total: \$130,000  
*Prin. Invest.:* M WALT  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8040**                      **STANFORD UNIVERSITY**                      **2010**  
 MESOSPHERIC AND IONOSPHERIC EFFECTS OF RELATIVISTIC ELECTRON PRECIPITATION OBSERVED BY THE SAMPEX A  
 01/11/1999 - 01/14/2001                      FY00: \$0                      Total: \$52,340  
*Prin. Invest.:* U S INAN  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS

**NAG 5 8563**                      **STANFORD UNIVERSITY**                      **2011**  
 URBANIZATION, LAND USE AND BIOLOGICAL RESOURCES  
 05/24/1999 - 05/31/2000                      FY00: \$0                      Total: \$47,001  
*Prin. Invest.:* M L IMHOFF  
*Tech. Officer:* GSFC/M L IMHOFF  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8600**                      **STANFORD UNIVERSITY**                      **2012**  
 X-RAY AND MICROWAVE MODELS IN SUPPORT OF HESSI SOLAR FLARE OBSERVATIONS  
 06/14/1999 - 06/14/2000                      FY00: \$0                      Total: \$46,260  
*Prin. Invest.:* V PETROSIAN  
*Tech. Officer:* GSFC/G D HOLMAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8645**                      **STANFORD UNIVERSITY**                      **2013**  
 STUDYING THE EFFECTS OF CA, MG, AND K ON AEROSOL SIZE & COMPOSITION, NOY & RADIATIVE TRANSFER  
 07/13/1999 - 07/31/2001                      FY00: \$104,988                      Total: \$212,041  
*Prin. Invest.:* M Z JACOBSON  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8714**                      **STANFORD UNIVERSITY**                      **2014**  
 VARIATIONS OF THE SOLAR MAGNETIC FIELDS  
 08/03/1999 - 08/31/2001                      FY00: \$22,500                      Total: \$46,500  
*Prin. Invest.:* P H SCHERRER  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8802**                      **STANFORD UNIVERSITY**                      **2015**  
 "ORION: A LOW-COST DEMONSTRATION OF FORMATION FLYING"  
 12/16/1999 - 12/31/2000                      FY00: \$650,000                      Total: \$650,000  
*Prin. Invest.:* R BYER  
*Tech. Officer:* GSFC/J O BRISTOW  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 8866**                      **STANFORD UNIVERSITY**                      **2016**  
 A COUPLED ICE-OCEAN MODEL OF MESOSCALE PHYSICAL/ BIOLOGICAL INTERACTIONS IN THE ROSS SEA  
 12/08/1999 - 12/31/2000                      FY00: \$169,598                      Total: \$169,598  
*Prin. Invest.:* K ARRIGO  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8878**                      **STANFORD UNIVERSITY**                      **2017**  
 SOLAR OSCILLATIONS INVESTIGATION-MISSION OBSERVATIONS AND DATA ANALYSIS - CONTINUATION OF NAG5-3077  
 01/04/2000 - 03/14/2001                      FY00: \$2,935,035                      Total: \$2,935,035  
*Prin. Invest.:* P SCHERRER  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9040** **STANFORD UNIVERSITY** **2018**  
 VALIDATION & IMPROVEMENT OF SRTM PERFORMANCE OVER RUGGED TERRAIN.  
 02/10/2000 - 02/14/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: H A ZEBKER  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9087** **STANFORD UNIVERSITY** **2019**  
 SUPERCONDUCTING WIDE-BAND FAST SPECTROPHOTOMETERS  
 02/17/2000 - 12/31/2000 FY00: \$301,440 Total: \$301,440  
 Prin. Invest.: B CABRERA  
 Tech. Officer: GSFC/P CRANE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9494** **STANFORD UNIVERSITY** **2020**  
 UPLINK MICRO-RADIO INSTRUMENT DEVELOPMENT  
 04/18/2000 - 04/30/2001 FY00: \$147,682 Total: \$147,682  
 Prin. Invest.: L TYLER  
 Tech. Officer: GSFC/B BETTS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9556** **STANFORD UNIVERSITY** **2021**  
 RESEARCH INTO RADIO OCCULTATION METHODS FOR STUDY OF PLANETARY ATMOSPHERES  
 05/04/2000 - 04/30/2001 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: G TYLER  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9737** **STANFORD UNIVERSITY** **2022**  
 DISTRIBUTED SPACE SYSTEM TECHNOLOGY DEMONSTRATIONS WITH THE EMERALD NANOSATELLITE  
 06/22/2000 - 06/30/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: DEBRA  
 Tech. Officer: GSFC/K LUU  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9760** **STANFORD UNIVERSITY** **2023**  
 MEASURING HUMAN IMPACTS ON BIODIVERSITY & CARRYING CAPACITY OF ECO-SYSTEMS: COMBINING REMOTELY-SENSE  
 06/29/2000 - 08/31/2001 FY00: \$50,486 Total: \$50,486  
 Prin. Invest.: P EHRLICH  
 Tech. Officer: GSFC/M L IMHOFF  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9784** **STANFORD UNIVERSITY** **2024**  
 STRUCTURE OF SOLAR VELOCITY AND MAGNETIC FIELDS  
 07/06/2000 - 06/30/2001 FY00: \$124,232 Total: \$124,232  
 Prin. Invest.: P T SCHERER  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9842** **STANFORD UNIVERSITY** **2025**  
 COMPOSITION, PALEOENVIRONMENTAL DISTRIBUTION, AND PALEOECOLOGY OF ARCHEAN BACTERIAL COMMUNITIES  
 07/31/2000 - 07/31/2001 FY00: \$83,273 Total: \$83,273  
 Prin. Invest.: D R LOWE  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9853** **STANFORD UNIVERSITY** **2026**  
 ANTARCTIC ICE SHEET PENETRATION DEPTHS, GRAIN SIZE & ACCUMULATION RATES FROM INSAR & SAR ANALYSIS OF  
 07/31/2000 - 09/30/2001 FY00: \$42,416 Total: \$42,416  
 Prin. Invest.: H ZEBKER  
 Tech. Officer: GSFC/E LINSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9862** **STANFORD UNIVERSITY** **2027**  
 SUPPORT FOR PUBLICATION COSTS FOR PRODUCT OF NASA- FUNDED MEETING  
 08/09/2000 - 07/31/2001 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: H A MOONEY  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1151** **STANFORD UNIVERSITY** **2028**  
 LASER SCATTERING TEMOGRAPHY  
 08/18/1995 - 02/28/2001 FY00: \$0 Total: \$730,000  
 Prin. Invest.: R S FEIGELSON  
 Tech. Officer: MSFC/D A REISS  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1430** **STANFORD UNIVERSITY** **2029**  
 R/S MINI SATELLITE TEST OF THE EQUIVALENCE PRINCIPLE  
 02/01/1998 - 01/31/1999 FY00: \$0 Total: \$844,478  
 Prin. Invest.: C W FRANCIS-EVERITT  
 Tech. Officer: MSFC/J W POE  
 CASE Category: 13 - PHYSICS

**NAG 8 1431** **STANFORD UNIVERSITY** **2030**  
 R/S HIGH RESOLUTION STUDY OF THE CRITICAL REGION OF OXYGEN USING MAGNETIC LEVITATION  
 03/05/1998 - 01/31/2003 FY00: \$99,925 Total: \$289,955  
 Prin. Invest.: J A LIPA  
 Tech. Officer: MSFC/D HUBBARD  
 CASE Category: 13 - PHYSICS

**NAG 8 1436** **STANFORD UNIVERSITY** **2031**  
 R/S A TEST OF SUPERSYMMETRY THEORY BY SEARCHING FOR ANOMALOUS SHORT RANGE FORCES  
 02/06/1998 - 01/31/2001 FY00: \$0 Total: \$124,856  
 Prin. Invest.: J A LIPA, NONE  
 Tech. Officer: MSFC/D HUBBARD  
 CASE Category: 13 - PHYSICS

**NAG 8 1439** **STANFORD UNIVERSITY** **2032**  
 R/S FUNDAMENTAL PHYSICS EXPERIMENTS WITH SUPER- CONDUCTING CAVITY-STABILIZED OSCILLATORS ON SPACE  
 02/01/1998 - 01/31/2003 FY00: \$250,047 Total: \$590,042  
 Prin. Invest.: J A LIPA  
 Tech. Officer: MSFC/J W POE  
 CASE Category: 13 - PHYSICS

**NAG 8 1457** **STANFORD UNIVERSITY** **2033**  
 R/S INVESTIGATION OF THE CRYSTAL GROWTH OF DIELECTRIC MATERIALS BY THE BRIDGMAN TECHNIQUE  
 02/01/1998 - 01/31/2002 FY00: \$131,000 Total: \$360,000  
 Prin. Invest.: R S FEIGELSON  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1692** **STANFORD UNIVERSITY** **2034**  
 "SOUD STATE ELECTROCHEMICAL OXYGEN CONVERSION FOR MARTIAN  
 & LUNAR ENVIRONMENTS..."  
 06/02/2000 - 11/30/2003 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: G M HOMSY  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 12 - CHEMISTRY

**NAS 1 00104** **STANFORD UNIVERSITY** **2035**  
 AWARD CONTRACT RESULTING FROM NRA-99-OES-07  
 05/25/2000 - 05/24/2001 FY00: \$217,000 Total: \$217,000  
 Prin. Invest.: R L BYER  
 Tech. Officer: LARC/F PERI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 98139** **STANFORD UNIVERSITY** **2036**  
 SAL: SYMBOLIC ANALYSIS LABORATORY  
 10/30/1998 - 10/29/2001 FY00: \$60,000 Total: \$475,070  
 Prin. Invest.: D L DILL  
 Tech. Officer: LARC/P S MINER  
 CASE Category: 22 - COMPUTER SCIENCE

**NAS 5 00147** **STANFORD UNIVERSITY** **2037**  
 GAMMA RAY LARGE AREA SPACE TELESCOPE (GLAST)  
 05/03/2000 - 09/30/2001 FY00: \$811,000 Total: \$811,000  
 Prin. Invest.: P MICHELSON  
 Tech. Officer: GSFC/S LAMBROSS  
 CASE Category: 11 - ASTRONOMY

**NAS 5 31726** **STANFORD UNIVERSITY** **2038**  
 EOS - "BIOSPHERE-ATMOSPHERE INTERACTIONS" STUDY  
 10/24/1991 - 06/30/2000 FY00: \$0 Total: \$1,340,200  
 Prin. Invest.: H MOONEY, P VITOUSEK  
 Tech. Officer: GSFC/P SELLERS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 98039** **STANFORD UNIVERSITY** **2039**  
 GLAST INSTRUMENT TECHNOLOGY  
 07/09/1998 - 02/10/2000 FY00: -\$40,000 Total: \$2,646,854  
 Prin. Invest.: P MICHELSON  
 Tech. Officer: GSFC/M D JOSEPH  
 CASE Category: 11 - ASTRONOMY

**NAS 5 98151** **STANFORD UNIVERSITY** **2040**  
 CONSTELLATION - X PROGRAM  
 11/27/1998 - 12/15/2001 FY00: \$0 Total: \$60,000  
 Prin. Invest.: B CABRERA  
 Tech. Officer: GSFC/J GRADY  
 CASE Category: 11 - ASTRONOMY

**NAS 8 39225** **STANFORD UNIVERSITY** **2041**  
 GRAVITY PROBE B SCIENCE MISSION INTERIM CONTRACT  
 01/18/1995 - 09/30/2003 FY00: \$35,100,204 Total: \$282,248,687  
 Prin. Invest.: C W EVERITT, B PARKINSON  
 Tech. Officer: MSFC/R S GEVEDEN, MSFC/B RANDOLPH  
 CASE Category: 13 - PHYSICS

**NCC 1 253** **STANFORD UNIVERSITY** **2042**  
 NEW ARCHITECTURES FOR MULTIDISCIPLINARY DESIGN AND OPTIMIZA-  
 TION  
 04/14/1997 - 04/13/1999 FY00: -\$32 Total: \$110,653  
 Prin. Invest.: I KROO, L L GREEN  
 Tech. Officer: LARC/L L GREEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 55** **STANFORD UNIVERSITY** **2043**  
 THE RESEARCH AND TRAINING ACTIVITIES FOR THE JOIN INSTITUTE FOR  
 AERONAUTICS AND ACOUSTICS"  
 12/01/1979 - 12/31/1998 FY00: -\$11,729 Total: \$7,955,129  
 Prin. Invest.: L ROBERTS, L ROBERTS  
 Tech. Officer: ARC/S S DAVIS, ARC/J D MURPHY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 333** **STANFORD UNIVERSITY** **2044**  
 RESEARCH ON CONTROL OF SPACECRAFT MANIPULATOR SYST  
 11/01/1987 - 10/31/1999 FY00: \$0 Total: \$7,859,798  
 Prin. Invest.: R H CANNON  
 Tech. Officer: ARC/M H SIMS, ARC/S LAU  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NCC 2 460** **STANFORD UNIVERSITY** **2045**  
 CENTER FOR TURBULENCE RESEARCH  
 12/01/1986 - 03/31/2000 FY00: \$0 Total: \$14,966,453  
 Prin. Invest.: P MOIN, W C REYNOLDS  
 Tech. Officer: ARC/M ROGERS  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 2 721** **STANFORD UNIVERSITY** **2046**  
 THE STRUCTURE, FACIES & DEPOSITION OF SILICEOUS S INTER AROUND  
 THERMAL SPRINGS: IMPLICATIONS FOR...  
 07/03/1991 - 12/31/2000 FY00: \$72,001 Total: \$539,229  
 Prin. Invest.: D R LOWE  
 Tech. Officer: ARC/D J DES MARAIS, ARC/S CHANG  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NCC 2 908** **STANFORD UNIVERSITY** **2047**  
 STUDIES OF PLANETARY RING SYSTEMS  
 06/26/1995 - 12/31/2000 FY00: \$144,350 Total: \$691,837  
 Prin. Invest.: A L TYLER, M R SHOWALTER  
 Tech. Officer: ARC/J N CUZZI  
 CASE Category: 11 - ASTRONOMY

**NCC 2 1004** **STANFORD UNIVERSITY** **2048**  
 TASK LEVEL CONTROL FOR A FULL SEMI-AUTONOMOUS MISS ION: TEST  
 PLATFORM DEVELOPMENT & DEMONSTRATION  
 08/19/1997 - 06/30/1999 FY00: \$0 Total: \$99,640  
 Prin. Invest.: S M ROCK, R CANNON  
 Tech. Officer: ARC/M H SIMS, ARC/C MINA  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 1010** **STANFORD UNIVERSITY** **2049**  
 DECELOPMENT OF 3-D BIOMEDICAL COMPUTATION  
 01/07/1998 - 11/30/2000 FY00: \$500,427 Total: \$1,350,421  
 Prin. Invest.: S A SCHENDEL  
 Tech. Officer: ARC/K A SOUZA  
 CASE Category: 56 - MEDICL

**NCC 2 1020**                      **STANFORD UNIVERSITY**                      **2050**  
 LEARNING AIR TRAFFIC CONTROL BY MEANS OF NEURAL NETWORKS  
 02/19/1998 - 10/31/1999      FY00: \$0                      Total: \$188,000  
*Prin. Invest.:* B WIDROW  
*Tech. Officer:* ARC/T J DAVIS, ARC/D ISAACSON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 1065**                      **STANFORD UNIVERSITY**                      **2051**  
 AN EXPERIMENTAL & COMPUTATIONAL STUDY OF THE AIRFLOW OVER SHIP DECKS  
 09/21/1998 - 03/31/1999      FY00: \$0                      Total: \$75,624  
*Prin. Invest.:* J J ALONSO, K LONG, P BRADSHAW  
*Tech. Officer:* ARC/G G ZILLIAC  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 1074**                      **STANFORD UNIVERSITY**                      **2052**  
 THE RESEARCH & TRAINING ACTIVITIES FOR THE JOINT INSTITUTE FOR AERONAUTICS AND ACOUSTICS  
 12/21/1998 - 10/31/1999      FY00: \$0                      Total: \$70,000  
*Prin. Invest.:* B J CANTWELL  
*Tech. Officer:* ARC/R A MEHTA  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 1151**                      **STANFORD UNIVERSITY**                      **2053**  
 CENTER FOR TURBULENCE RESEARCH  
 01/07/2000 - 12/31/2000      FY00: \$1,320,000                      Total: \$1,320,000  
*Prin. Invest.:* P MOIN  
*Tech. Officer:* ARC/M ROGERS  
*CASE Category:* 46 - MECHANICAL ENGR

**NCC 2 1154**                      **STANFORD UNIVERSITY**                      **2054**  
 MULTIPLE COOPERATING ROBOTS  
 01/20/2000 - 12/31/2000      FY00: \$569,999                      Total: \$569,999  
*Prin. Invest.:* S ROCK  
*Tech. Officer:* ARC/H THOMAS/S LAU  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 1172**                      **STANFORD UNIVERSITY**                      **2055**  
 HIGH REGRESSION RATE HYBRID COMBUSTION  
 04/10/2000 - 03/31/2001      FY00: \$198,240                      Total: \$198,240  
*Prin. Invest.:* B J CANTWELL  
*Tech. Officer:* ARC/G G ZILLIAC  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NCC 2 1175**                      **STANFORD UNIVERSITY**                      **2056**  
 THE DEVELOPMENT OF A SOLID WASTE TREATMENT TECHNOLOGY FOR THE NEAR TERM HUMAN EXPLORATION OF MARS  
 04/27/2000 - 09/30/2000      FY00: \$110,594                      Total: \$110,594  
*Prin. Invest.:* M REINHARD  
*Tech. Officer:* ARC/M T FLYNN  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NCC 2 5186**                      **STANFORD UNIVERSITY**                      **2057**  
 HIGHLY ACCURATE RECONSTRUCTION OF COMPUTED TOMOGRAPHY VOLUME SCANS FOR THE DETERMINATION OF LOCAL BONE  
 07/25/1996 - 06/30/2000      FY00: \$0                      Total: \$129,000  
*Prin. Invest.:* S A NAPEL  
*Tech. Officer:* ARC/R T WHALEN  
*CASE Category:* 56 - MEDICAL

**NCC 2 5197**                      **STANFORD UNIVERSITY**                      **2058**  
 SHARP/TREV REENTRY VEHICLE ELECTRONICS DESIGN  
 12/12/1996 - 09/30/1999      FY00: \$0                      Total: \$79,851  
*Prin. Invest.:* B CANTWELL, R TWIGGS  
*Tech. Officer:* ARC/P KOLODZIEJ  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 5205**                      **STANFORD UNIVERSITY**                      **2059**  
 DIAGNOSTICS FOR PLASMA ENHANCED CHEMICAL VAPOR DEPOSITION AND ETCH SYSTEMS  
 02/21/1997 - 01/31/1999      FY00: \$0                      Total: \$132,220  
*Prin. Invest.:* M CAPPELLI  
*Tech. Officer:* ARC/S SHARMA  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NCC 2 5211**                      **STANFORD UNIVERSITY**                      **2060**  
 INTEGRATED COMPUTATIONAL SYSTEM FOR AERODYNAMIC STEERING AND VISUALIZATION  
 04/03/1997 - 12/31/1998      FY00: -\$198                      Total: \$39,802  
*Prin. Invest.:* L HESSELINK  
*Tech. Officer:* ARC/D KORSMEYER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5226**                      **STANFORD UNIVERSITY**                      **2061**  
 AERO-STRUCTURAL OPTIMIZATION OF HSCT CONFIGURATIONS IN TRANSONIC AND SUPERSONIC  
 07/08/1997 - 09/30/1998      FY00: -\$2,930                      Total: \$47,825  
*Prin. Invest.:* J J ALONSI, G A JAMESON  
*Tech. Officer:* ARC/D P BENCZE, ARC/S E CLIFF  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 5249**                      **STANFORD UNIVERSITY**                      **2062**  
 HUMAN-VEHICLE INTERFACE FOR SEMI-AUTONOMOUS OPERATION OF UNINHABITED AERO VEHICLES  
 01/23/1998 - 12/31/1999      FY00: \$0                      Total: \$64,485  
*Prin. Invest.:* S ROCK  
*Tech. Officer:* ARC/J LARIMER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 5261**                      **STANFORD UNIVERSITY**                      **2063**  
 INVESTIGATION OF ATTENTIONAL BOTTLENECKS USING FUNCTIONAL MAGNETIC RESONANCE IMAGING  
 06/17/1998 - 02/28/2001      FY00: \$13,333                      Total: \$76,258  
*Prin. Invest.:* J E GABRIEL  
*Tech. Officer:* ARC/R W REMINGTON, ARC/J C JOHNSTON  
*CASE Category:* 61 - PSYCHOLOGY BIOLOGY

**NCC 2 5269**                      **STANFORD UNIVERSITY**                      **2064**  
 INTEGRATED COMPUTATIONAL SYSTEM FOR AERODYNAMIC STEERING & VISUALIZATION  
 06/02/1998 - 02/28/1999      FY00: -\$21                      Total: \$39,979  
*Prin. Invest.:* L HESSELINK  
*Tech. Officer:* ARC/D J KORSMEYER, ARC/J D WALTON  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5270**                      **STANFORD UNIVERSITY**                      **2065**  
 EXPLORING CARBON NANOTUBES FOR FUTURE 1NM NANOLITHOGRAPHY  
 06/12/1998 - 05/31/2001      FY00: \$0                      Total: \$70,000  
*Prin. Invest.:* H DAI  
*Tech. Officer:* ARC/T R GOVINDAN  
*CASE Category:* 12 - CHEMISTRY

**NCC 2 5272** **STANFORD UNIVERSITY** **2066**  
 PLANETARY ROBOTIC VEHICLE MOBILITY TECHNOLOGY  
 06/25/1998 - 03/14/2000 FY00: \$0 Total: \$40,000  
 Prin. Invest.: B B LUSIGNAN  
 Tech. Officer: ARC/C R STOKER  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5278** **STANFORD UNIVERSITY** **2067**  
 ARCHITECTURE FOR ACCESS & MUNIPULATION OF HETEROGE NEOUS  
 INFORMATION  
 07/16/1998 - 06/30/2000 FY00: \$71,125 Total: \$190,000  
 Prin. Invest.: H GARCIA-MOLINA, NONE  
 Tech. Officer: ARC/M GERALD-YAMASAKI  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5286** **STANFORD UNIVERSITY** **2068**  
 AUTOMATED INTERNET-BASED CONTROL OF SPACECRAFT GRO UNDSTA-  
 TIONS  
 08/04/1998 - 07/31/1999 FY00: \$0 Total: \$39,974  
 Prin. Invest.: B J CANTWELL, R J TWIGGS  
 Tech. Officer: ARC/K J SWANSON  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5298** **STANFORD UNIVERSITY** **2069**  
 THEORETICAL MODELING OF AUTOCATALYTIC MOLECULAR SY STEMS  
 10/22/1998 - 03/31/2000 FY00: \$0 Total: \$30,000  
 Prin. Invest.: R B LAUGHLIN  
 Tech. Officer: ARC/J D SCARGLE, ARC/S P COLOMBANO  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5335** **STANFORD UNIVERSITY** **2070**  
 SHARP SOUNDING ROCKET EMPIRIMENT & ENTRY SIMULATIO N  
 07/23/1999 - 12/31/2000 FY00: \$87,275 Total: \$122,275  
 Prin. Invest.: B CANTWELL, R TWIGGS  
 Tech. Officer: ARC/P KOLODZIEJ, ARC/D J RASKY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5350** **STANFORD UNIVERSITY** **2071**  
 SIMULATION-BASED PROTOYPING OF SOLID-STATE QUANTUM  
 COMPUTERS  
 09/15/1999 - 01/31/2001 FY00: \$30,000 Total: \$60,000  
 Prin. Invest.: K CHO  
 Tech. Officer: ARC/T R GOVINDAN  
 CASE Category: 13 - PHYSICS

**NCC 2 5352** **STANFORD UNIVERSITY** **2072**  
 THE STRUCTURE & CHEMISTRY OF HIGH DENSITY INDUCTIV ELY  
 COUPLED PLASMA DEISCHARGES USED IN MICROELECT  
 09/22/1999 - 04/14/2000 FY00: \$34,512 Total: \$45,512  
 Prin. Invest.: M A CAPPELLI  
 Tech. Officer: ARC/S P SHARMA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5354** **STANFORD UNIVERSITY** **2073**  
 A STUDY OF RADIO TRANSMISSION THROUGH THE ICE OF J UPITER'S  
 MOON EUROPA  
 09/23/1999 - 11/14/1999 FY00: -\$7,206 Total: \$12,352  
 Prin. Invest.: A C FRASER-SMITH  
 Tech. Officer: ARC/H W JONES  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 2 5359** **STANFORD UNIVERSITY** **2074**  
 INVESTIGATION OF CONVOLUTION SEGMENT PAIR DYADS IN BACTERIAL  
 GENOMES  
 10/26/1999 - 10/14/2000 FY00: \$50,500 Total: \$50,500  
 Prin. Invest.: R B LAUGHLIN  
 Tech. Officer: ARC/M L FONDA  
 CASE Category: 13 - PHYSICS

**NCC 2 5363** **STANFORD UNIVERSITY** **2075**  
 DEVELOPMENT OF FUNDAMENTAL TECHNOLOGIES FOR FLUID FLOW  
 CALCULATIONS  
 01/25/2000 - 01/31/2001 FY00: \$111,250 Total: \$111,250  
 Prin. Invest.: T HUGHES  
 Tech. Officer: ARC/T J BARTH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 5371** **STANFORD UNIVERSITY** **2076**  
 FABRICATION OF SILICON SUBSTRATES FOR CONTROLLED SY NTHESISI OF  
 CARBON NANOTUBES  
 03/23/2000 - 02/28/2001 FY00: \$45,050 Total: \$45,050  
 Prin. Invest.: Z SHEN  
 Tech. Officer: ARC/M MEYYPAPPAN/H PARTRIDGE  
 CASE Category: 13 - PHYSICS

**NCC 2 5377** **STANFORD UNIVERSITY** **2077**  
 DEVELOPMENT AND APPLICATION OF NOVEL DIAGNOSTICS FOR ARC-JET  
 CHARACTERIZATION  
 04/03/2000 - 03/31/2001 FY00: \$94,896 Total: \$94,896  
 Prin. Invest.: R K HANSON  
 Tech. Officer: ARC/D G FLETCHER, ARC/G A RAICNE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5381** **STANFORD UNIVERSITY** **2078**  
 IN VIVO CHARACTERIZATION OF BREAST TUMOR TISSUE US ING THE  
 NASA SMART PROBE  
 04/28/2000 - 11/30/2000 FY00: \$23,708 Total: \$23,708  
 Prin. Invest.: S JEFFREY, NONE  
 Tech. Officer: ARC/R MAH  
 CASE Category: 56 - MEDICL

**NCC 2 5400** **STANFORD UNIVERSITY** **2079**  
 SIMULATION-BASED DESIGN OF SMART NANOTUBE COMPOSIT E  
 MATERIALS  
 09/25/2000 - 09/30/2001 FY00: \$38,647 Total: \$38,647  
 Prin. Invest.: K J CHO  
 Tech. Officer: ARC/H PARTIDGE, ARC/M MEYYPAPPAN  
 CASE Category: 12 - CHEMISTRY

**NCC 3 840** **STANFORD UNIVERSITY** **2080**  
 ATTENUATION OF GAS TURBULENCE BY A NEARIT STATIONA RY DISPER-  
 SION OF FINE PARTICLES  
 08/18/1998 - 12/31/2002 FY00: \$100,000 Total: \$280,000  
 Prin. Invest.: J K EATON  
 Tech. Officer: GRC/F CHARIMONTE  
 CASE Category: 46 - MECHANICAL ENGR



**NCC 8 197** **STANFORD UNIVERSITY** **2081**  
 ACTIVE SENSING MONITORING OF CRYOGENIC COMPOSITE STRUCTURES  
 FOR SPACE TRANSPORTATION APPLICATIONS.  
 03/09/2000 - 03/08/2001 FY00: \$160,000 Total: \$160,000  
 Prin. Invest.: F CHANG  
 Tech. Officer: MSFC/A KELLEY  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 2 52212** **STANFORD UNIVERSITY** **2082**  
 A SUMMER PROGRAM OF NASA SUMMER FACULTY FELLOWSHIP S AT  
 AMES RESEARCH, DRYDEN FLIGHT RESEARCH CENTER  
 06/04/1996 - 03/31/2000 FY00: -\$45,551 Total: \$1,790,449  
 Prin. Invest.: G S SPRINGER, M E TAUBER  
 Tech. Officer: ARC/M M MOORE, ARC/S A STANLEY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 2 52220** **STANFORD UNIVERSITY** **2083**  
 TURBULENCE MEASUREMENTS ON A WING FLAP EDGE & WING SLAT  
 MODEL  
 09/03/1996 - 11/30/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: B CANTWELL, P J MORIARTY  
 Tech. Officer: ARC/J C ROSS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 2 52246** **STANFORD UNIVERSITY** **2084**  
 ADVANCED LIFE SUPPORT POWER REDUCTION  
 08/20/1998 - 09/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: B LUSIGNAN  
 Tech. Officer: ARC/R T WHALEN  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NGT 2 52267** **STANFORD UNIVERSITY** **2085**  
 AN ALTERNATIVE TO PNEUMATIC CONTROL TECHNIQUES FOR ROLL-YAW  
 CONTROL OF FLIGHT VEHICLES  
 07/28/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: S M ROCK  
 Tech. Officer: ARC/R D MEHTA, ARC/J C ROSS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 92** **STANFORD UNIVERSITY** **2086**  
 RADIO DIAGNOSTICS OF AURORAL HISS AND ASSOCIATED PLASMA  
 DENSITY STRUCTURES/STUDENT: MARIA SALVATI  
 06/09/1999 - 09/14/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: U UMRAN  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 45 - ELECTRICAL ENGR

**NGT 5 103** **STANFORD UNIVERSITY** **2087**  
 ADVANCED SOLAR EUV & X-RAY SPECTROHELIOGRAPHY WITH THE TRAN-  
 SITION EDGES SENSOR MICROCALORIMETER/STUDEN  
 05/25/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: A B WALKER  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 13 - PHYSICS

**NGT 5 30018** **STANFORD UNIVERSITY** **2088**  
 ANTHROPOGENIC CHANGES IN GRASSLANDS: CONSEQUENCES  
 ATMOSPHERIC CARBON DIOXIDE AND SPECIES INVASIONS  
 10/14/1996 - 08/31/1999 FY00: -\$147 Total: \$65,853  
 Prin. Invest.: H MOONEY  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30130** **STANFORD UNIVERSITY** **2089**  
 BIOGEOCHEMICAL CONTROLS OVER THE PRODUCTION & LOSS OF  
 DISSOLVED ORGANIC NUTRIENTS IN LOWLAND TROPIC  
 10/14/1997 - 08/31/1999 FY00: -\$37 Total: \$43,963  
 Prin. Invest.: D VITOUSE  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30204** **STANFORD UNIVERSITY** **2090**  
 LAND-USE CHANGE, AGRICULTURAL RUNOFF, & GREENHOUSE GASES IN  
 TWO ESTUARIES OF SOUTHERN SONORA MEXICO  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: P MATSON  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30216** **STANFORD UNIVERSITY** **2091**  
 PHYSIO-CHEMICAL AND BIOLOGICAL CONTROL OVER THE FA TE OF  
 NITROGEN AND PHOSPHORUS IN TROPICAL SOIL  
 08/24/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: P M VITOUSEK  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30342** **STANFORD UNIVERSITY** **2092**  
 HYDROLOGIC APPLICATIONS OF SATELLITE RADAR INTERFEROMETRY: LAND  
 SUBSIDENCE OVER EXPLOITED AQUIFER SYS  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: H ZEBKER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30360** **STANFORD UNIVERSITY** **2093**  
 THE COCCIDIOIDES IMMITS FUNGUS: EXPOSURE MODELING & PUBLIC  
 POLICY THROUGH FAVORED SOIL HABITAT  
 08/23/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: G W ERNST  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50044** **STANFORD UNIVERSITY** **2094**  
 THE SEARCH FOR A DEFINITIVE BLACK HOLE SIGNATURE: PED MODES OF  
 DISK OSCILLATION  
 07/17/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: R WAGONER  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50075** **STANFORD UNIVERSITY** **2095**  
 SENSING AND CONTROL TECHNOLOGIES FOR FORMATION FLYING  
 08/26/1997 - 12/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J HOW  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50101** **STANFORD UNIVERSITY** **2096**  
 ASSESSING LINKS BETWEEN BIODIVERSITY AND ECOSYSTEM FORESTS  
 09/06/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: C FIELD  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50227 STANFORD UNIVERSITY 2097**  
 GLOBAL LIGHTNING DETECTION AND LOCATION USING LONG RANGE VLF  
 SPHERIC MEASUREMENTS  
 09/29/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: U INAN, WOOD  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 50254 STANFORD UNIVERSITY 2098**  
 MULTI-SPECTRAL OBSERVATIONS OF THE SOLAR CORONA, CHROMO-  
 SPHERE AND TRANSITION REGION  
 06/10/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: A B WALKER, JR.  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 9 28 STANFORD UNIVERSITY 2099**  
 TASK-LEVEL CONTROL FOR SPACE ROBOTIC MANIPULATORS  
 09/25/1997 - 09/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J HOW  
 Tech. Officer: JSC/D G SICKOREZ  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NGT 10 52619 STANFORD UNIVERSITY 2100**  
 GSRP TRAINING GRANT  
 01/20/1999 - 07/30/2000 FY00: \$0 Total: \$38,667  
 Prin. Invest.: C S CRIDDLE  
 Tech. Officer: KSC/R M WHEELER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 3647 THE SCRIPPS RESEARCH INST (TSRI) -LA JOLLA 2101**  
 EVOLUTION OF CATALYTIC RNA IN THE LABORATORY  
 03/06/1997 - 11/30/1999 FY00: \$0 Total: \$522,699  
 Prin. Invest.: D JOYCE  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 5191 THE SCRIPPS RESEARCH INST (TSRI) -LA JOLLA 2102**  
 SATELLITE REMOTE SENSING STUDIES OF BIOLOGICAL AND  
 BIOGEOCHEMICAL PROCESSES IN THE OCEAN  
 04/21/1998 - 03/31/2001 FY00: \$0 Total: \$38,852  
 Prin. Invest.: M VERNET  
 Tech. Officer: GSFC/F E HOGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9386 THE SCRIPPS RESEARCH INST (TSRI) -LA JOLLA 2103**  
 EVOLUTION OF CATALYTIC RNA IN THE LABORATORY  
 04/07/2000 - 03/31/2001 FY00: \$271,861 Total: \$271,861  
 Prin. Invest.: G JOYCE  
 Tech. Officer: HQ/M MEYER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9604 THE SCRIPPS RESEARCH INST (TSRI) -LA JOLLA 2104**  
 A REGIONAL REAL-TIME, INTERACTIVE, GIS-BASED COMPUTATIONAL  
 ENVIRONMENT FOR NASA'S DIRECT BROADCAST  
 05/31/2000 - 05/31/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: J J SIMPSON  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 1055 THE SCRIPPS RESEARCH INST (TSRI) -LA JOLLA 2105**  
 SELF-REPRODUCING MOLECULAR SYSTEMS & DARWINIAN CHEMISTRY  
 08/27/1998 - 06/30/2003 FY00: \$958,300 Total: \$2,133,300  
 Prin. Invest.: R GHADIRI  
 Tech. Officer: ARC/L J CAROFF, ARC/S CHANG  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 1 2191 UNIVERSITY OF CALIFORNIA - BERKELEY 2106**  
 MODEL ISOTOPE FRACTIONATION IN STRATOSPHERIC CO<sub>2</sub>/N<sub>2</sub>O/CH<sub>4</sub> & O<sub>3</sub>, INVEST  
 STRATOSPHERIC CHEM/TRANSPORT, STRAT/TROPOSP  
 05/17/1999 - 03/31/2002 FY00: \$92,000 Total: \$187,725  
 Prin. Invest.: K A BOERING  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1039 UNIVERSITY OF CALIFORNIA - BERKELEY 2107**  
 TOOLS FOR NONLINEAR CONTROL SYSTEMS DESIGN  
 04/17/1996 - 11/30/1999 FY00: \$0 Total: \$260,372  
 Prin. Invest.: S S SASTRY  
 Tech. Officer: ARC/G MEYER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 2 1135 UNIVERSITY OF CALIFORNIA - BERKELEY 2108**  
 ALGORITHMS FOR VISUAL SEARCH AND THE PATHFINDER ROVER  
 06/25/1997 - 11/30/1999 FY00: \$0 Total: \$175,000  
 Prin. Invest.: L W STARK  
 Tech. Officer: ARC/M M SIMS  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1177 UNIVERSITY OF CALIFORNIA - BERKELEY 2109**  
 RESEARCH ON THE APPLICATION OF FUZZY LOGIC & GRANULAR  
 COMPUTING & SOFT COMPUTING TO SYSTEM ANALYSIS  
 02/11/1998 - 12/31/1998 FY00: \$0 Total: \$66,553  
 Prin. Invest.: L A ZADEH  
 Tech. Officer: ARC/B J GLASS  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1210 UNIVERSITY OF CALIFORNIA - BERKELEY 2110**  
 FORMAL METHODS FOR SOFTWARE EVOLUTION MODELING INTERFACE  
 05/07/1998 - 07/31/2001 FY00: \$0 Total: \$449,999  
 Prin. Invest.: A AOLEM  
 Tech. Officer: ARC/M R LOWRY  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1214 UNIVERSITY OF CALIFORNIA - BERKELEY 2111**  
 MOCHA-MODULARITY IN MODEL CHECKING  
 05/05/1998 - 10/31/2000 FY00: \$0 Total: \$850,000  
 Prin. Invest.: T A HENZINGER  
 Tech. Officer: ARC/M R LOWRY  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1255 UNIVERSITY OF CALIFORNIA - BERKELEY 2112**  
 HIGH SENSITIVITY HIGH RESOLUTION VIDEO CAMERA FOR OPTICAL  
 IMAGING OF DYNAMIC RETINAL ACTIVITY  
 08/26/1998 - 09/30/1998 FY00: -\$1,044 Total: \$18,706  
 Prin. Invest.: F S WERBLIN  
 Tech. Officer: ARC/C C JORGENSEN, ARC/C L JACKSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1275 UNIVERSITY OF CALIFORNIA - BERKELEY 2113**  
 SUPERCONDUCTING BOLOMETERS FOR INFRARED & MILLIMETER WAVELENGTHS  
 12/29/1998 - 12/14/1999 FY00: \$0 Total: \$65,000  
 Prin. Invest.: P L RICHARDS  
 Tech. Officer: ARC/C R MCCREIGHT  
 CASE Category: 13 - PHYSICS

**NAG 2 1351 UNIVERSITY OF CALIFORNIA - BERKELEY 2114**  
 EARLY GRAVITROPIC EVENTS IN ROOTS OF ARABIDOPSIS: CA2+ & H+ FLUXES IN THE COLUMELLA CELLS  
 07/21/1999 - 12/31/2000 FY00: \$188,119 Total: \$234,393  
 Prin. Invest.: L J FELDMAN  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1359 UNIVERSITY OF CALIFORNIA - BERKELEY 2115**  
 COMPARATIVE ANALYSIS OF SEGMENTATION, DURING EMBRYO GENESIS, POSTEMBRYONIC GROWTH & REGENERATION, AM  
 07/23/1999 - 07/31/2000 FY00: \$186,578 Total: \$272,193  
 Prin. Invest.: D A WEISBLAT  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1361 UNIVERSITY OF CALIFORNIA - BERKELEY 2116**  
 HEMICHORDATES & THE ORIGIN OF CHORDATES  
 07/27/1999 - 12/14/2000 FY00: \$156,289 Total: \$276,289  
 Prin. Invest.: J C GERHART  
 Tech. Officer: ARC/M M AVERNER, ARC/G C JAHNS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1398 UNIVERSITY OF CALIFORNIA - BERKELEY 2117**  
 SUPERCONDUCTING BOLOMETERS OF INFRARED AND MILLIMETER WAVELENGTHS  
 03/16/2000 - 03/14/2001 FY00: \$90,000 Total: \$90,000  
 Prin. Invest.: P L RICHARDS  
 Tech. Officer: ARC/C MCCREIGHT  
 CASE Category: 13 - PHYSICS

**NAG 3 2026 UNIVERSITY OF CALIFORNIA - BERKELEY 2118**  
 A FUNDAMENTAL STUDY OF SMOLDERING COMBUSTION IN MICROGRAVITY  
 03/14/1997 - 05/31/2002 FY00: \$132,590 Total: \$575,026  
 Prin. Invest.: A C FERNANDEZ-PELLO  
 Tech. Officer: GRC/D L URBAN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2103 UNIVERSITY OF CALIFORNIA - BERKELEY 2119**  
 LOW EMISSION, HIGH PERFORMANCE GAS TURBINE ENGINES EXPERIMENT AND MODEL RESEARCH AND DEVELOPMENT  
 03/04/1998 - 01/07/2001 FY00: \$31,477 Total: \$258,423  
 Prin. Invest.: R DIBBLE  
 Tech. Officer: GRC/R R TACINA, GRC/N S LUU  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2105 UNIVERSITY OF CALIFORNIA - BERKELEY 2120**  
 MICROGRAVITY EFFECTS ON NEAR - BUBBLE MICROSCALE TRANSPORT DURING BOILING OF BINARY FLUID MIXTURES  
 02/26/1998 - 12/31/2000 FY00: \$110,178 Total: \$279,761  
 Prin. Invest.: V P CAREY  
 Tech. Officer: GRC/B J MOTIL  
 CASE Category: 13 - PHYSICS

**NAG 3 2152 UNIVERSITY OF CALIFORNIA - BERKELEY 2121**  
 WEAKLY NONLINEAR DESCRIPTION OF PARAMETRIC INSTABILITIES  
 06/09/1998 - 12/31/2002 FY00: \$125,000 Total: \$300,000  
 Prin. Invest.: E KNOBLOCK  
 Tech. Officer: GRC/J R SKARDA  
 CASE Category: 13 - PHYSICS

**NAG 3 2221 UNIVERSITY OF CALIFORNIA - BERKELEY 2122**  
 NUMERICAL STUDY OF BUOYANCY AND DIFFERENTIAL DIFFUSION EFFECTS ON THE STRUCTURE AND DYNAMICS OF TRI  
 12/29/1998 - 11/11/2001 FY00: \$62,893 Total: \$108,266  
 Prin. Invest.: J CHEN  
 Tech. Officer: GRC/K SACKSTEDER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 4 124 UNIVERSITY OF CALIFORNIA - BERKELEY 2123**  
 CONTROL-ORIENTED NONLINEAR MODELING OF FLUTTER IN FLIGHT SYSTEMS  
 04/08/1997 - 11/30/1998 FY00: -\$667 Total: \$39,333  
 Prin. Invest.: A PACKARD, P KAMESHWAR  
 Tech. Officer: DFRC/M BRENNER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 696 UNIVERSITY OF CALIFORNIA - BERKELEY 2124**  
 A PROPOSAL TO FLY THE EUV/FUV SPECTROMETER ON ORFEUS FOR ASTRO-SPAS I & II  
 12/18/1992 - 02/28/2001 FY00: \$0 Total: \$2,839,678  
 Prin. Invest.: M V HURWITZ  
 Tech. Officer: GSFC/M B JOHNSN  
 CASE Category: 13 - PHYSICS

**NAG 5 959 UNIVERSITY OF CALIFORNIA - BERKELEY 2125**  
 ELECTRON REFLECTOMETER ADDITION TO THE MAGNETIC FIELDS INVESTIGATION ON THE MARS OBSERVER MISSION  
 08/01/1987 - 01/14/2000 FY00: \$0 Total: \$1,778,915  
 Prin. Invest.: R P LIN, C F MCKEE  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 2718 UNIVERSITY OF CALIFORNIA - BERKELEY 2126**  
 CONTINUED ANALYSIS OF GEOTAIL ELECTRIC FIELD DATA  
 09/07/1994 - 09/30/1999 FY00: \$0 Total: \$331,500  
 Prin. Invest.: F S MOZER  
 Tech. Officer: GSFC/D FAIRFIELD  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3182 UNIVERSITY OF CALIFORNIA - BERKELEY 2127**  
 MISSION OPERATIONS AND DATA ANALYSIS FOR THE ELECTRIC FIELD EXPERIMENT ON POLAR  
 03/13/1996 - 09/30/1999 FY00: \$0 Total: \$2,276,459  
 Prin. Invest.: F S MOZER  
 Tech. Officer: GSFC/R A HOFFMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 3280 UNIVERSITY OF CALIFORNIA - BERKELEY 2128**  
 HIGH RESOLUTION OBSERVATIONS FROM SPACE: NEW INSIGHTS INTO DARK MATTER AND GALAXY FORMATION  
 07/03/1996 - 07/14/2000 FY00: \$0 Total: \$406,700  
 Prin. Invest.: T BROADHURST  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3471 UNIVERSITY OF CALIFORNIA - BERKELEY 2129**  
 DANCING WITH DISKS: TEMPORAL BEHAVIOR OF T TAURI S  
 10/30/1996 - 10/31/1999 FY00: \$0 Total: \$109,981  
*Prin. Invest.:* G S BASRI  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3499 UNIVERSITY OF CALIFORNIA - BERKELEY 2130**  
 COSMOLOGICAL STUDIES OF THE COSMIC MICROWAVE BACKG  
 11/27/1996 - 11/30/2001 FY00: \$158,600 Total: \$335,762  
*Prin. Invest.:* M I DAVIS  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3500 UNIVERSITY OF CALIFORNIA - BERKELEY 2131**  
 ADDING THE MARS '96 GAMMA-RAY BURST EXPERIMENT TO RY NETWORK  
 11/27/1996 - 11/30/2000 FY00: \$35,650 Total: \$139,000  
*Prin. Invest.:* K C HURLEY  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3556 UNIVERSITY OF CALIFORNIA - BERKELEY 2132**  
 A MULTI-WAVELENGTH STUDY OF A COMPLETE SAMPLE OF N  
 01/04/1997 - 12/14/2001 FY00: \$132,000 Total: \$502,000  
*Prin. Invest.:* A V FILIPPENKO  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3596 UNIVERSITY OF CALIFORNIA - BERKELEY 2133**  
 MISSION OPERATIONS AND DATA ANALYSIS FOR THE FAST AURORAL  
 SNAPSHOT EXPLORER (FAST) MISSION  
 01/25/1997 - 03/14/2001 FY00: \$1,901,000 Total: \$11,157,000  
*Prin. Invest.:* C W CARLSON  
*Tech. Officer:* GSFC/R F PFAFF, JR.  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 3809 UNIVERSITY OF CALIFORNIA - BERKELEY 2134**  
 THE DYNAMICS OF PHOTON BUBBLES IN ACCRETION POWERE  
 01/20/1997 - 04/14/2000 FY00: \$0 Total: \$219,000  
*Prin. Invest.:* R I KLIEN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3813 UNIVERSITY OF CALIFORNIA - BERKELEY 2135**  
 HIDDEN COMPANIONS TO EARLY TYPE STARS  
 01/14/1997 - 01/14/1999 FY00: \$0 Total: \$6,000  
*Prin. Invest.:* N CRAIG  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3913 UNIVERSITY OF CALIFORNIA - BERKELEY 2136**  
 PHOTOCATHODE, MICROCHANNEL PLATE AND DELAY LINE TE D UV-VIS-  
 IBLE DETECTOR SYSTEMS  
 02/21/1997 - 06/14/2001 FY00: \$0 Total: \$785,100  
*Prin. Invest.:* D H SIEGMUND  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3916 UNIVERSITY OF CALIFORNIA - BERKELEY 2137**  
 DEVELOPMENT OF A RADIO TOMOGRAPHY MISSION FOR INVE 'S MAGNE-  
 TOSPHERE  
 02/21/1997 - 08/14/2000 FY00: \$0 Total: \$160,000  
*Prin. Invest.:* F S MOZER  
*Tech. Officer:* GSFC/R HOWARD  
*CASE Category:* 13 - PHYSICS

**NAG 5 3941 UNIVERSITY OF CALIFORNIA - BERKELEY 2138**  
 DEVELOPMENT OF DATA ANALYSIS, COMPRESSION AND VISU LARGE DATA  
 SETS IN ASTROPHYSICS AND COSMOLOGY  
 03/03/1997 - 02/28/2001 FY00: \$0 Total: \$423,000  
*Prin. Invest.:* G SMOOT  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 3951 UNIVERSITY OF CALIFORNIA - BERKELEY 2139**  
 HIGH EFFICIENCY EUV/FUV INTERFEROMETRIC SPECTROSCO  
 02/12/1997 - 02/14/2001 FY00: \$0 Total: \$300,000  
*Prin. Invest.:* D EDELSTEIN  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4090 UNIVERSITY OF CALIFORNIA - BERKELEY 2140**  
 FILTERS FOR THE FAR ULTRAVIOLET REGION  
 03/18/1997 - 10/31/1999 FY00: \$0 Total: \$132,900  
*Prin. Invest.:* D H SIEGMUND  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4181 UNIVERSITY OF CALIFORNIA - BERKELEY 2141**  
 THE PHYSICS OF FLARING ATMOSPHERES  
 03/19/1997 - 07/14/1999 FY00: \$0 Total: \$136,000  
*Prin. Invest.:* D H FISHER  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4194 UNIVERSITY OF CALIFORNIA - BERKELEY 2142**  
 SILICON DIFFRACTION GRATINGS FOR ULTRAVIOLET APPLI  
 03/25/1997 - 03/31/2001 FY00: \$84,780 Total: \$372,848  
*Prin. Invest.:* D V HURWITZ  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4202 UNIVERSITY OF CALIFORNIA - BERKELEY 2143**  
 JOVIAN RING SYSTEM  
 03/17/1997 - 03/31/2001 FY00: \$0 Total: \$111,000  
*Prin. Invest.:* D DE PATER  
*Tech. Officer:* GSFC/W HUEBNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4226 UNIVERSITY OF CALIFORNIA - BERKELEY 2144**  
 IMAGING THE DISKS AROUND YSO'S WITH THE BIMA MM AR  
 03/25/1997 - 09/30/1999 FY00: \$0 Total: \$65,000  
*Prin. Invest.:* D J WELCH  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4454 UNIVERSITY OF CALIFORNIA - BERKELEY 2145**  
 BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE BACKGROUND  
 ON ANGULAR SCALES OF 0.2 TO 40 DEGREES  
 06/16/1997 - 01/31/2001 FY00: \$0 Total: \$450,000  
*Prin. Invest.:* D L RICHARD  
*Tech. Officer:* GSFC/H THRONSON  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4521 UNIVERSITY OF CALIFORNIA - BERKELEY 2146**  
 CARBON AND SILICON CARBIDE CLUSTERS AND THEIR RELATIONSHIP TO  
 LABORATORY INVESTIGATION OF THE UNIDENTIFIED  
 05/08/1997 - 04/30/2000 FY00: \$80,000 Total: \$460,000  
*Prin. Invest.:* D J SAYKALLY  
*Tech. Officer:* GSFC/G STRINGFELLOW  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4790 UNIVERSITY OF CALIFORNIA - BERKELEY 2147**  
 A SEARCH FOR NONTHERMAL X-RAY EMISSION FROM RADIO  
 06/17/1997 - 06/30/2000 FY00: \$0 Total: \$22,700  
*Prin. Invest.:* J ARONS  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4884 UNIVERSITY OF CALIFORNIA - BERKELEY 2148**  
 PAH EMISSION BANDS IN SELECTED PNE  
 07/28/1997 - 07/31/2000 FY00: \$0 Total: \$75,000  
*Prin. Invest.:* M COHEN  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4898 UNIVERSITY OF CALIFORNIA - BERKELEY 2149**  
 KINETIC ANALYSIS OF LANGMUIR WAVE PACKETS IN THE E  
 06/20/1997 - 06/30/2000 FY00: \$0 Total: \$126,000  
*Prin. Invest.:* D E ERGUN  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 13 - PHYSICS

**NAG 5 4899 UNIVERSITY OF CALIFORNIA - BERKELEY 2150**  
 THE FORMATION AND MAINTENANCE OF THE ZONAL WINDS ON  
 06/20/1997 - 04/30/1999 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* D S MARCUS  
*Tech. Officer:* GSFC/S HOWARD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4979 UNIVERSITY OF CALIFORNIA - BERKELEY 2151**  
 MARS/TITAN/MOON SOLAR WIND INTERACTIONS  
 07/09/1997 - 07/14/2000 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* D G LUHMANN  
*Tech. Officer:* GSFC/S HOWARD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4992 UNIVERSITY OF CALIFORNIA - BERKELEY 2152**  
 HISTORICAL STUDIES ON EXTRATERRESTRIAL MATERIALS  
 06/27/1997 - 12/31/2000 FY00: \$314,000 Total: \$672,000  
*Prin. Invest.:* D NISHIZUMI  
*Tech. Officer:* GSFC/J F BOYCE  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 5092 UNIVERSITY OF CALIFORNIA - BERKELEY 2153**  
 STUDY OF ULTRAHEAVY COSMIC RAYS WITH HNC ON THE RUSSIAN SPACE  
 STATION MIR  
 11/14/1996 - 04/30/2000 FY00: \$0 Total: \$220,000  
*Prin. Invest.:* E F FRANCE  
*Tech. Officer:* GSFC/M C NEEDLEMAN, GSFC/E A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5102 UNIVERSITY OF CALIFORNIA - BERKELEY 2154**  
 ASTROPHYSICAL GAMMA-RAY SPECTROSCOPY WITH THE HIGH RESOLU-  
 TION GAMMA-RAY (HIREGS)  
 02/11/1997 - 10/31/2000 FY00: \$0 Total: \$1,492,600  
*Prin. Invest.:* R W LIN  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5107 UNIVERSITY OF CALIFORNIA - BERKELEY 2155**  
 ECCO: THE EXTREMELY HEAVY COSMIC RAY COMPOSITION OBSERVER  
 04/02/1997 - 09/30/1999 FY00: \$0 Total: \$200,000  
*Prin. Invest.:* A J WESTPHAL  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5146 UNIVERSITY OF CALIFORNIA - BERKELEY 2156**  
 DEVELOPMENT OF GAS MICROSTRUCTURE DETECTORS (GMSD) FOR  
 GAMMA-RAY TELESCOPES  
 07/02/1997 - 07/02/2001 FY00: \$0 Total: \$248,130  
*Prin. Invest.:* C HAILEY  
*Tech. Officer:* GSFC/H NEEDLEMAN  
*CASE Category:* 13 - PHYSICS

**NAG 5 5197 UNIVERSITY OF CALIFORNIA - BERKELEY 2157**  
 PECASE PROGRAM FUNDING FOR THE FIRST YEAR OF RESEARCH;  
 SELECTED  
 05/21/1998 - 05/31/2001 FY00: \$0 Total: \$100,000  
*Prin. Invest.:* M V HURWITZ  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5213 UNIVERSITY OF CALIFORNIA - BERKELEY 2158**  
 FUNDING FOR PHASE A OF THE CHIPS PROJECT P. I. - DR. M HURWITZ  
 10/08/1998 - 10/31/2003 FY00: \$1,902,158 Total: \$3,736,580  
*Prin. Invest.:* M HURWITZ  
*Tech. Officer:* GSFC/D PIERCE  
*CASE Category:* 13 - PHYSICS

**NAG 5 5231 UNIVERSITY OF CALIFORNIA - BERKELEY 2159**  
 TECHNOLOGY DEVELOPMENT FOR THE EXTREMELY-HEAVY GALACTIC  
 COSMIC-RAY COMPOSITION OBSERVER (ECCO)  
 05/17/1999 - 05/10/2004 FY00: \$298,900 Total: \$619,900  
*Prin. Invest.:* A J WESTPHAL  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5285 UNIVERSITY OF CALIFORNIA - BERKELEY 2160**  
 DEVELOPMENT OF GERMANIUM DETECTORS WITH LESS THAN 3D SPATIAL  
 RESOLUTION FOR NUCLEAR GAMMA-RAY ASTRO  
 06/12/2000 - 06/07/2002 FY00: \$178,500 Total: \$178,500  
*Prin. Invest.:* R P LIN  
*Tech. Officer:* WFF/B MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6103 UNIVERSITY OF CALIFORNIA - BERKELEY 2161**  
 NEW DIRECTIONS IN COMETARY SPECTROSCOPY  
 07/24/1997 - 07/31/2001 FY00: \$0 Total: \$83,000  
*Prin. Invest.:* D SPINRAD  
*Tech. Officer:* GSFC/J BERGSTRAHL  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6128 UNIVERSITY OF CALIFORNIA - BERKELEY 2162**  
 THE INTERRELATION OF SOFT AND HARD X-RAY EMISSION  
 08/04/1997 - 06/30/1999 FY00: \$0 Total: \$120,500  
*Prin. Invest.:* D FISHER  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6515 UNIVERSITY OF CALIFORNIA - BERKELEY 2163**  
 CENTER FOR ASSESSMENT AND MONITORING OF FOREST AND ENVIRONMENTAL RESOURCES (CAMFER) AND THE EARTH  
 10/23/1997 - 09/30/1999 FY00: \$0 Total: \$500,000  
*Prin. Invest.:* D BRIMHALL  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6551 UNIVERSITY OF CALIFORNIA - BERKELEY 2164**  
 ORIGIN AND EVOLUTION OF WHITE DWARF STARS: THE EARLY YEARS (LTSA)  
 11/21/1997 - 11/30/2000 FY00: \$103,200 Total: \$283,900  
*Prin. Invest.:* S VENNES  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6552 UNIVERSITY OF CALIFORNIA - BERKELEY 2165**  
 FOREGROUND ANALYSIS & REMOVAL FOR FUTURE CMB EXPERIMENTS (LTSA)  
 11/21/1997 - 11/30/2000 FY00: \$0 Total: \$317,100  
*Prin. Invest.:* G F SMOOT  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6593 UNIVERSITY OF CALIFORNIA - BERKELEY 2166**  
 LAND-USE AND LAND-COVER CHANGE IN SONORA, MEXICO  
 11/18/1997 - 11/14/2000 FY00: \$22,900 Total: \$215,069  
*Prin. Invest.:* T L BENNING  
*Tech. Officer:* GSFC/A C JANETOS  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 6706 UNIVERSITY OF CALIFORNIA - BERKELEY 2167**  
 THE DISTRIBUTION AND VARIABILITY OF LOCAL INTERSTELLAR HE IN THE HELIOSPHERIC IONOSPHERE  
 12/16/1997 - 12/14/1999 FY00: -\$5 Total: \$11,515  
*Prin. Invest.:* B FLYNN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6748 UNIVERSITY OF CALIFORNIA - BERKELEY 2168**  
 DETERMINATION OF THE PROPERTIES OF HE IN THE LOCAL INTERSTELLAR MEDIUM FROM THE EUVE ALL-SKY SURVEY  
 01/12/1998 - 12/31/2000 FY00: \$0 Total: \$65,555  
*Prin. Invest.:* B FLYNN  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6870 UNIVERSITY OF CALIFORNIA - BERKELEY 2169**  
 A STUDY OF MEV TERRESTRIAL X-RAY BURSTS WITH AN ARCTIC LONG DURATION BALLOON FLIGHT AND ISTP  
 01/13/1998 - 01/31/2000 FY00: \$0 Total: \$130,000  
*Prin. Invest.:* R LIN  
*Tech. Officer:* GSFC/L ZANETTI  
*CASE Category:* 13 - PHYSICS

**NAG 5 6890 UNIVERSITY OF CALIFORNIA - BERKELEY 2170**  
 VLA MONITORING OF JUPITER IN 3-D AT  $\approx 6-90$  CM: 1981 - 1996  
 01/21/1998 - 12/31/2000 FY00: \$62,355 Total: \$190,439  
*Prin. Invest.:* I DE PATER  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6895 UNIVERSITY OF CALIFORNIA - BERKELEY 2171**  
 COMPARATIVE ANALYSIS OF MGS AND PVO OBSERVATIONS FROM AN AEROMICALPERSPECTIVE  
 01/16/1998 - 03/31/2000 FY00: \$0 Total: \$49,300  
*Prin. Invest.:* J LUHMANN  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6919 UNIVERSITY OF CALIFORNIA - BERKELEY 2172**  
 X-RAY EMISSION FROM WHITE DWARF SYMBIOTIC BINARIES \_\_\_\_ ASCA PROPOSAL  
 01/28/1998 - 01/31/1999 FY00: \$0 Total: \$17,262  
*Prin. Invest.:* L BILDSTEN  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6928 UNIVERSITY OF CALIFORNIA - BERKELEY 2173**  
 ANALYSIS OF DATA FROM THE 3-D PLASMA AND ENERGETIC PARTICLE EXPERIMENT ON THE GGS WIND SPACECRAFT  
 02/04/1998 - 01/31/2001 FY00: \$688,000 Total: \$2,408,000  
*Prin. Invest.:* R P LIN  
*Tech. Officer:* GSFC/K OBILVIE  
*CASE Category:* 13 - PHYSICS

**NAG 5 6932 UNIVERSITY OF CALIFORNIA - BERKELEY 2174**  
 GRANT  
 01/29/1998 - 01/31/2001 FY00: \$0 Total: \$87,000  
*Prin. Invest.:* C W CARLSON  
*Tech. Officer:* GSFC/M HESSE  
*CASE Category:* 13 - PHYSICS

**NAG 5 6985 UNIVERSITY OF CALIFORNIA - BERKELEY 2175**  
 CHARACTERIZATION AND NUMERICAL SIMULATION OF FAST SOLITARY WAVES IN THE AURORAL IONOSPHERE  
 02/10/1998 - 03/31/2000 FY00: \$0 Total: \$143,700  
*Prin. Invest.:* R E ERGUN  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7018 UNIVERSITY OF CALIFORNIA - BERKELEY 2176**  
 WIRE: A DEEP MULTI-WAVELENGTH SURVEY OF THE GALACTIC PLANE  
 02/18/1998 - 02/14/2000 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* M COHEN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7173 UNIVERSITY OF CALIFORNIA - BERKELEY 2177**  
 AN ISOTOPIC APPROACH FOR DETERMINING THE INDUSTRIAL FRACTION  
 OF THE TOTAL CH3BR SOURCE TO THE A  
 03/24/1998 - 02/28/2001 FY00: \$70,000 Total: \$210,000  
*Prin. Invest.:* A GOLDSTEIN, NONE  
*Tech. Officer:* GSFC/P DECOLA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7174 UNIVERSITY OF CALIFORNIA - BERKELEY 2178**  
 IMPLEMENTATION AND DEPLOYMENT OF A GENERALIZED SEARCH TREE  
 FOR MANAGING MULTIPLE DATA TYPES  
 04/06/1998 - 09/30/2000 FY00: \$0 Total: \$193,868  
*Prin. Invest.:* J M HELLERSTEIN  
*Tech. Officer:* GSFC/A J TUYAHOV  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7188 UNIVERSITY OF CALIFORNIA - BERKELEY 2179**  
 RESTORATION OF ISEE-3/ICE X-RAY DATA  
 03/26/1998 - 06/30/1999 FY00: \$0 Total: \$44,100  
*Prin. Invest.:* G H FISHER  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7265 UNIVERSITY OF CALIFORNIA - BERKELEY 2180**  
 GALACTIC BLACK HOLES AND POSITRON ANNIHILATION RADIATION  
 04/29/1998 - 11/30/2000 FY00: \$36,000 Total: \$102,000  
*Prin. Invest.:* D M SMITH  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7311 UNIVERSITY OF CALIFORNIA - BERKELEY 2181**  
 A STUDY OF CIRCUMSTELLAR GAS IN BETA PICTURE LIKE PROTOPLANETARY  
 DISKS  
 04/22/1998 - 04/30/2001 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* B Y WELSH  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7343 UNIVERSITY OF CALIFORNIA - BERKELEY 2182**  
 IDENTIFYING SGR1900+14, THE THIRD SOFT GAMMA REPEATER, WITH  
 ASCA  
 05/07/1998 - 05/14/2000 FY00: \$0 Total: \$20,400  
*Prin. Invest.:* K C HURLEY  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7351 UNIVERSITY OF CALIFORNIA - BERKELEY 2183**  
 AN OBSERVATION TEST OF TRANSITION REGION LINES AS A PRESSURE  
 GAUGE  
 04/28/1998 - 04/30/1999 FY00: \$0 Total: \$41,000  
*Prin. Invest.:* O SIEGMUND  
*Tech. Officer:* GSFC/A POLAND  
*CASE Category:* 13 - PHYSICS

**NAG 5 7356 UNIVERSITY OF CALIFORNIA - BERKELEY 2184**  
 EXTENSION OF "SCIENCE INFORMATION INFRASTRUCTURE" GRANT  
 NAG5-2875. CONTINUED DEVELOPMENT AND DI  
 05/21/1998 - 01/31/2001 FY00: \$150,000 Total: \$450,000  
*Prin. Invest.:* I HAWKINS, NONE  
*Tech. Officer:* GSFC/A F HASLER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7457 UNIVERSITY OF CALIFORNIA - BERKELEY 2185**  
 CARBON IN THE UNIVERSE: PAHs AND CLUSTERS  
 09/18/1998 - 06/30/2001 FY00: \$65,940 Total: \$335,940  
*Prin. Invest.:* R SAYKALLY  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7522 UNIVERSITY OF CALIFORNIA - BERKELEY 2186**  
 MONITORING OBSERVATIONS OF BLACK HOLE CANDIDATES 1 E  
 1740.7-2942 AND GRS 1758-258  
 06/02/1998 - 05/31/1999 FY00: -\$1 Total: \$16,145  
*Prin. Invest.:* D M SMITH  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7580 UNIVERSITY OF CALIFORNIA - BERKELEY 2187**  
 "SEISMIC HAZARD ASSESSMENT OF THE HAYWARD FAULT, CALIFORNIA, FROM  
 GPS AND INSAR MEASUREMENTS" (SE  
 08/04/1998 - 01/31/2001 FY00: \$75,000 Total: \$187,000  
*Prin. Invest.:* R BURGMANN, NONE  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7615 UNIVERSITY OF CALIFORNIA - BERKELEY 2188**  
 ADVANCE THE STATE OF THE ART IN MICROCHANNEL PLATE  
 TECHNOLOGY TO SIGNIFICANTLY IMPROVE DETECTION  
 08/24/1998 - 08/31/2001 FY00: \$129,959 Total: \$265,206  
*Prin. Invest.:* D SIEGMUND  
*Tech. Officer:* GSFC/F S HERRERO  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7755 UNIVERSITY OF CALIFORNIA - BERKELEY 2189**  
 DIRECT IMMERSION PROCESS FOR MCP PERFORMANCE IMPROVEMENTS  
 12/08/1998 - 12/31/2000 FY00: \$93,258 Total: \$193,258  
*Prin. Invest.:* D EDELSTEIN  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7766 UNIVERSITY OF CALIFORNIA - BERKELEY 2190**  
 ANALYSIS OF ROSAT AND SAX DATA ON COSMIC GAMMA-RAY BURSTS  
 ADP98  
 01/06/1999 - 01/14/2000 FY00: \$0 Total: \$29,500  
*Prin. Invest.:* K C HURLEY  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7833 UNIVERSITY OF CALIFORNIA - BERKELEY 2191**  
 STUDIES OF DUST EMISSION AS MEASURED BY DIRBE AND IRAS ADP98  
 12/14/1998 - 12/14/2000 FY00: \$84,680 Total: \$146,593  
*Prin. Invest.:* M DAVIS  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7890 UNIVERSITY OF CALIFORNIA - BERKELEY 2192**  
 CYCLE 8 CONTINUATION OF THE SEARCH FOR GRAVITATIONAL LENSING  
 IN GRBS  
 12/02/1998 - 01/14/2000 FY00: \$0 Total: \$2,000  
*Prin. Invest.:* K C HURLEY  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7928 UNIVERSITY OF CALIFORNIA - BERKELEY 2193**  
 CORONAL HEATING IN ACTIVE REGIONS  
 12/14/1998 - 12/14/2000 FY00: \$0 Total: \$70,000  
*Prin. Invest.:* G H FISHER  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7929 UNIVERSITY OF CALIFORNIA - BERKELEY 2194**  
 INFLUENCE OF NONEQUILIBRIUM IONIZATION ON TEMPERATURE AND  
 EMISSION MEASURE DIAGNOSTICS  
 12/14/1998 - 12/14/2000 FY00: \$59,600 Total: \$116,700  
*Prin. Invest.:* D T WOODS  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7936 UNIVERSITY OF CALIFORNIA - BERKELEY 2195**  
 PROBING THE MORPHOLOGY, DYNAMICS AND INTERFACES OF THE  
 INTERSTELLAR MEDIUM (LISA 98)  
 12/23/1998 - 12/31/2000 FY00: \$76,000 Total: \$149,000  
*Prin. Invest.:* M COHEN *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7951 UNIVERSITY OF CALIFORNIA - BERKELEY 2196**  
 CMES AND SOLAR MAGNETIC FIELD EVOLUTION: A SOHO GLI PROPOSAL  
 12/21/1998 - 12/31/2000 FY00: \$81,800 Total: \$166,400  
*Prin. Invest.:* J G LUHMANN  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7961 UNIVERSITY OF CALIFORNIA - BERKELEY 2197**  
 A MULTI-INSTRUMENT INVESTIGATION OF WAVE AND PARTICLE  
 PROCESSES IN THE SOLARWIND AND AT THE BOW SHOCK  
 12/23/1998 - 12/14/2000 FY00: \$0 Total: \$62,600  
*Prin. Invest.:* S D BALE  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8078 UNIVERSITY OF CALIFORNIA - BERKELEY 2198**  
 ANALYSIS OF DATA FROM ELECTRIC FIELD EXPERIMENT ON POLAR 1  
 01/22/1999 - 02/28/2001 FY00: \$401,500 Total: \$1,040,500  
*Prin. Invest.:* F MOZER  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8098 UNIVERSITY OF CALIFORNIA - BERKELEY 2199**  
 THE MAGNETIC FIELDS OF T TAURI STARS  
 02/04/1999 - 02/14/2001 FY00: \$35,000 Total: \$75,000  
*Prin. Invest.:* C M JOHNS-KRULL  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8206 UNIVERSITY OF CALIFORNIA - BERKELEY 2200**  
 RXTE SEARCH FOR LONG-LIVED AFTERGLOWS FROM GAMMA RAY  
 BURSTS  
 02/11/1999 - 02/14/2000 FY00: \$0 Total: \$4,125  
*Prin. Invest.:* K C HURLEY  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8209 UNIVERSITY OF CALIFORNIA - BERKELEY 2201**  
 ACCRETION ONTO T TAURI STARS (ADP98)  
 02/25/1999 - 02/28/2001 FY00: \$62,800 Total: \$123,700  
*Prin. Invest.:* C M JOHNS-KRULL  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8262 UNIVERSITY OF CALIFORNIA - BERKELEY 2202**  
 THE PRIMORDIAL UNIVERSE  
 02/18/1999 - 08/31/2000 FY00: \$0 Total: \$24,696  
*Prin. Invest.:* J SILK  
*Tech. Officer:* GSFC/H SMITH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8410 UNIVERSITY OF CALIFORNIA - BERKELEY 2203**  
 ANNUAL MEETING OF THE NATIONAL CONFERENCE OF BLACK PHYSICS  
 STUDENTS  
 03/15/1999 - 02/29/2000 FY00: \$0 Total: \$83,000  
*Prin. Invest.:* G BASRI  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 13 - PHYSICS

**NAG 5 8435 UNIVERSITY OF CALIFORNIA - BERKELEY 2204**  
 TIMING STUDIES OF TWO CANDIDATE MAGNETIC SYMBIOTIC BINARIES  
 04/02/1999 - 03/31/2000 FY00: \$0 Total: \$9,314  
*Prin. Invest.:* L BILDSTEN  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8468 UNIVERSITY OF CALIFORNIA - BERKELEY 2205**  
 THE PHYSICS OF ACTIVE REGIONS  
 05/04/1999 - 04/30/2001 FY00: \$56,850 Total: \$174,550  
*Prin. Invest.:* G H FISHER  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8489 UNIVERSITY OF CALIFORNIA - BERKELEY 2206**  
 IMPLEMENTATION OF ALGORITHMS FOR HIGH SPEED AUTONOMOUS CCD  
 DATA REDUCTION  
 05/03/1999 - 04/14/2001 FY00: \$0 Total: \$31,400  
*Prin. Invest.:* D L BUZASI  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NAG 5 8510 UNIVERSITY OF CALIFORNIA - BERKELEY 2207**  
 EVALUATING MODEL PREDICTIONS OF CO<sub>2</sub> & WATER VAPOR EXCHANGE  
 WITH FLUX MEASUREMENTS IN A PONDEROSA  
 06/02/1999 - 06/30/2001 FY00: \$44,570 Total: \$84,090  
*Prin. Invest.:* D BALDOCCHI  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8667 UNIVERSITY OF CALIFORNIA - BERKELEY 2208**  
 AN ADVANCED PHOTON COUNTING UV IMAGING DETECTOR  
 07/08/1999 - 07/14/2001 FY00: \$156,600 Total: \$299,600  
*Prin. Invest.:* O H SIEGMUND  
*Tech. Officer:* GSFC/G MUCKLOW  
*CASE Category:* 11 - ASTRONOMY



**NAG 5 8737 UNIVERSITY OF CALIFORNIA - BERKELEY 2209**  
 THE ROLE OF MULTI-SCALE LAND SURFACE HETEROGENEITY IN PRECIPITATION RECYCLING AND LAND ATMOSPHERE  
 08/17/1999 - 08/14/2001 FY00: \$40,000 Total: \$80,000  
*Prin. Invest.:* X LIANG  
*Tech. Officer:* GSFC/ET ENGMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8753 UNIVERSITY OF CALIFORNIA - BERKELEY 2210**  
 FLUXNET: UNIFYING A GLOBAL ARRAY OF TOWER FLUX NETWORKS FOR VALIDATING EOS TERRESTRIAL CARBON, WATER  
 08/12/1999 - 12/31/2000 FY00: \$238,975 Total: \$313,975  
*Prin. Invest.:* D BALDOCCHI  
*Tech. Officer:* GSFC/D STARR  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8861 UNIVERSITY OF CALIFORNIA - BERKELEY 2211**  
 DETECTING EXTRASOLAR PLANETS  
 10/07/1999 - 06/30/2001 FY00: \$340,247 Total: \$340,247  
*Prin. Invest.:* D W MARCY  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8962 UNIVERSITY OF CALIFORNIA - BERKELEY 2212**  
 FUSE SPECTROSCOPY OF HOT POST-AGB STARS IN GLOBULAR CLUSTERS - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$31,600 Total: \$31,600  
*Prin. Invest.:* W V DIXON  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8984 UNIVERSITY OF CALIFORNIA - BERKELEY 2213**  
 CORONAL HEATING DURING STELLAR FLARES & THE SEARCH FOR PROTON BEAMS - FUSE  
 02/03/2000 - 01/31/2001 FY00: \$63,300 Total: \$63,300  
*Prin. Invest.:* G H FISHER  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9091 UNIVERSITY OF CALIFORNIA - BERKELEY 2214**  
 RESEARCH IN FUV INTERFEROMETRIC SPECTROSCOPY III  
 02/17/2000 - 02/14/2001 FY00: \$94,200 Total: \$94,200  
*Prin. Invest.:* J EDELSTEIN  
*Tech. Officer:* GSFC/P CRANE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9115 UNIVERSITY OF CALIFORNIA - BERKELEY 2215**  
 PHASE-A AND BRIDGE PHASE STUDY OF STEREO/WAVES ACCOMMODATION  
 03/02/2000 - 02/28/2001 FY00: \$80,800 Total: \$80,800  
*Prin. Invest.:* S BALE  
*Tech. Officer:* GSFC/M L KAISER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9126 UNIVERSITY OF CALIFORNIA - BERKELEY 2216**  
 ANALYSIS OF ASCA, BEPOSAX, AND RXTE DATA ON GAMMA-RAY BURSTS AND SOFT GAMMA REPEATERS - ADP 99  
 03/14/2000 - 03/14/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* K H HURLEY  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9130 UNIVERSITY OF CALIFORNIA - BERKELEY 2217**  
 CORONAL STRUCTURE IN THE RS CVN BINARY AR Lacertae ADP99  
 02/28/2000 - 02/28/2001 FY00: \$35,000 Total: \$35,000  
*Prin. Invest.:* O H SIEGMUND  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9149 UNIVERSITY OF CALIFORNIA - BERKELEY 2218**  
 ADVANCED MCP UV VISIBLE DETECTOR SYSTEMS  
 03/03/2000 - 03/14/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* O SIEGMUND  
*Tech. Officer:* GSFC/P CRANE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9210 UNIVERSITY OF CALIFORNIA - BERKELEY 2219**  
 SWIFT PHASE B AND C/D  
 03/10/2000 - 09/30/2000 FY00: \$60,000 Total: \$60,000  
*Prin. Invest.:* K HURLEY  
*Tech. Officer:* GSFC/N GEHRELS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9231 UNIVERSITY OF CALIFORNIA - BERKELEY 2220**  
 DEVELOPMENT OF A LONG-TERM INVENTORY OF FIRE BURNED AREAS & EMISSIONS OF NORTH AMERICA'S BOREAL AND  
 03/22/2000 - 04/30/2001 FY00: \$70,405 Total: \$70,405  
*Prin. Invest.:* P GONG  
*Tech. Officer:* GSFC/G GUTMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9260 UNIVERSITY OF CALIFORNIA - BERKELEY 2221**  
 AN EXPERIMENTAL INVESTIGATION OF THE REACTION CHEMISTRY OF ORGANIC MOLECULES IN COMETARY IMPACT  
 03/17/2000 - 03/14/2001 FY00: \$84,780 Total: \$84,780  
*Prin. Invest.:* J BLANK  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 9305 UNIVERSITY OF CALIFORNIA - BERKELEY 2222**  
 DATA CALIBRATION AND SCIENTIFIC DEFINITION OF THE NEAR, LUNAR PROSPECTOR AND MGS MAGNETOMETERS  
 03/20/2000 - 03/31/2001 FY00: \$65,641 Total: \$65,641  
*Prin. Invest.:* R LIN *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 5 9317 UNIVERSITY OF CALIFORNIA - BERKELEY 2223**  
 ENHANCEMENT OF THE GLOBAL SYSTEMS SCIENCE STUDENT GUIDE SERIES FOR THE DIGITAL EARTH INITIATIVE  
 03/22/2000 - 03/31/2003 FY00: \$99,998 Total: \$99,998  
*Prin. Invest.:* A GOULD  
*Tech. Officer:* GSFC/N KHAZENIE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9318 UNIVERSITY OF CALIFORNIA - BERKELEY 2224**  
 ASTROSEISMOLOGY WITH THE WIRE SATELLITE: TAKING ADVANTAGE OF A UNIQUE OPPORTUNITY  
 03/22/2000 - 03/31/2001 FY00: \$45,000 Total: \$45,000  
*Prin. Invest.:* D BUZASI  
*Tech. Officer:* GSFC/P CRANE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9384 UNIVERSITY OF CALIFORNIA - BERKELEY 2225**  
 MOLECULAR CARBON IN THE GALAXY  
 04/04/2000 - 03/31/2001 FY00: \$150,720 Total: \$150,720  
 Prin. Invest.: R J SAYKALLY  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 13 - PHYSICS

**NAG 5 9398 UNIVERSITY OF CALIFORNIA - BERKELEY 2226**  
 BALLOON BORNE OBSERVATIONS OF THE POLARIZATION ANI SOTROPY  
 OF THE COSMIC MICROWAVE BACKGROUND RADIAT  
 04/06/2000 - 03/31/2001 FY00: \$171,700 Total: \$171,700  
 Prin. Invest.: P L RICHARDS  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9503 UNIVERSITY OF CALIFORNIA - BERKELEY 2227**  
 ADDING NEAR TO THE 3RD INTERPLANETARY NETWORK OF GAMMA-RAY  
 BURST DETECTORS  
 04/24/2000 - 04/30/2001 FY00: \$65,000 Total: \$65,000  
 Prin. Invest.: K C HURLEY  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9514 UNIVERSITY OF CALIFORNIA - BERKELEY 2228**  
 BIOSPHERE-ATMOSPHERE INTERACTIONS  
 04/25/2000 - 04/30/2001 FY00: \$206,667 Total: \$206,667  
 Prin. Invest.: I FUNG  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9523 UNIVERSITY OF CALIFORNIA - BERKELEY 2229**  
 QTHE FEASIBILITY OF DETECTING ELECTRIC FIELDS ON THE MARS 03  
 PROMISE ELEEELECTRICAL SUBPACKAGE  
 07/31/2000 - 07/31/2001 FY00: \$27,000 Total: \$27,000  
 Prin. Invest.: G T DELORY  
 Tech. Officer: GSFC/W M FARRELL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9626 UNIVERSITY OF CALIFORNIA - BERKELEY 2230**  
 NEW SOLAR MAX GRANT STUDIES OF GEOTAIL ELECTRIC FIELDS &  
 PLASMA FIELDS  
 05/22/2000 - 09/30/2000 FY00: \$45,034 Total: \$45,034  
 Prin. Invest.: F MOZER  
 Tech. Officer: GSFC/D FAIRFIELD  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9629 UNIVERSITY OF CALIFORNIA - BERKELEY 2231**  
 CASSANDRA: A STORM BASED MODEL FOR FORECASTING THE INITIATION  
 & RUNOUT OF DEBRIS FLOWS  
 05/30/2000 - 05/31/2001 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: W E DIETRICH  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9650 UNIVERSITY OF CALIFORNIA - BERKELEY 2232**  
 NEW ISTP SOLAR MAX GRANT: DUAL SPACECRAFT OBSERVA TIONS OF  
 DAYSIDE RECONNECTION  
 05/30/2000 - 05/31/2001 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: C CARLSON  
 Tech. Officer: GSFC/M ACUNA  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9701 UNIVERSITY OF CALIFORNIA - BERKELEY 2233**  
 MAINTAINING AND EXPANDING THE 3RD INTERPLANETARY NETWORK  
 06/15/2000 - 06/14/2001 FY00: \$5,000 Total: \$5,000  
 Prin. Invest.: K C HURLEY  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9884 UNIVERSITY OF CALIFORNIA - BERKELEY 2234**  
 GEOLOGICAL ANALYSIS OF MARTIAN CRUSTAL MAGNETIC AMOMALIES  
 08/25/2000 - 08/14/2001 FY00: \$8,800 Total: \$8,800  
 Prin. Invest.: M RICHARDS  
 Tech. Officer: GSFC/P TAYLOR  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9909 UNIVERSITY OF CALIFORNIA - BERKELEY 2235**  
 SOLIDS IN EARLY SOLAR SYSTEM  
 08/31/2000 - 08/31/2001 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: F H SHU  
 Tech. Officer: GSFC/J M BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9926 UNIVERSITY OF CALIFORNIA - BERKELEY 2236**  
 DATA SYSTEM PREPARATIONS FOR LONG-BASELINE INFRA RED  
 09/14/2000 - 08/31/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: C TOWNES  
 Tech. Officer: GSFC/B DANCHI  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9973 UNIVERSITY OF CALIFORNIA - BERKELEY 2237**  
 DISTRIBUTION OF ARGON IN THE DAYSIDE LUNAR ATMOSP HERE - FUSE  
 09/14/2000 - 09/14/2001 FY00: \$20,700 Total: \$20,700  
 Prin. Invest.: B C FLYNN  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9975 UNIVERSITY OF CALIFORNIA - BERKELEY 2238**  
 CLUSTER ELECTRIC FIELD DATA ANALYSIS  
 09/14/2000 - 09/30/2001 FY00: \$300,000 Total: \$300,000  
 Prin. Invest.: F MOZER  
 Tech. Officer: GSFC/M GOLDSTEIN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 6 10 UNIVERSITY OF CALIFORNIA - BERKELEY 2239**  
 SOUNDING ROCKET RESEARCH PROGRAM  
 11/01/1980 - 12/31/2000 FY00: \$0 Total: \$3,619,476  
 Prin. Invest.: C W CARLSON, F S MOZER, K A ANDERSON  
 Tech. Officer: GSFC/W B JOHNSON, GSFC/R H PLESS  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1432 UNIVERSITY OF CALIFORNIA - BERKELEY 2240**  
 R/S SUPERFLUID GYROSCOPES FOR SPACE  
 03/02/1998 - 01/31/2003 FY00: \$100,000 Total: \$287,000  
 Prin. Invest.: R E PACKARD  
 Tech. Officer: MSFC/D HUBBARD  
 CASE Category: 13 - PHYSICS

**NAG 8 1458 UNIVERSITY OF CALIFORNIA - BERKELEY 2241**  
 R/S EXPLOITING THE TEMPERATURE DEPENDENCE OF MAGNETIC  
 SUSCEPTIBILITY TO CONTROL CONVECTION  
 02/15/1998 - 01/31/2002 FY00: \$90,000 Total: \$237,000  
*Prin. Invest.:* J W EVANS, F SZOFRAN  
*Tech. Officer:* MSFC/P M DOTY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 9 1051 UNIVERSITY OF CALIFORNIA - BERKELEY 2242**  
 GENESIS DISCOVERY MISSION  
 08/19/1998 - 07/09/2001 FY00: \$0 Total: \$68,600  
*Prin. Invest.:* K NISHIZUMI  
*Tech. Officer:* JSC/K E CYR  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAGW 2029 UNIVERSITY OF CALIFORNIA - BERKELEY 2243**  
 INSTRUMENT DEVELOPMENT AND SCIENTIFIC APPLICATIONS OF THE  
 EXTREME ULTRAVIOLET IMAGING TELESCOPE ARR  
 04/02/1990 - 09/30/1998 FY00: \$0 Total: \$379,000  
*Prin. Invest.:* O SIEGMUND  
*Tech. Officer:* HQ/G CLAYTON  
*CASE Category:* 11 - ASTRONOMY

**NAS 1 99053 UNIVERSITY OF CALIFORNIA - BERKELEY 2244**  
 NEXT GENERATION TECHNOLOGIES FOR THE IN SITU DETECTION OF NOX  
 RADICALS AND RESERVOIRS FROM AIRCRAFT  
 02/10/1999 - 11/30/2000 FY00: \$288,751 Total: \$563,751  
*Prin. Invest.:* R COHEN  
*Tech. Officer:* LARC/J HILL  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 00133 UNIVERSITY OF CALIFORNIA - BERKELEY 2245**  
 STEREO PHASE A CONCEPT STUDY FOR INSITU MEASUREMENTS OF  
 PARTICLES & CME TRANSIENTS (IMPACT)  
 02/22/2000 - 08/31/2000 FY00: \$1,049,985 Total: \$1,049,985  
*Prin. Invest.:* J LUHMAN, E STONE  
*Tech. Officer:* GSFC/A HARPER  
*CASE Category:* 13 - PHYSICS

**NAS 5 30801 UNIVERSITY OF CALIFORNIA - BERKELEY 2246**  
 ISTEP PROJECT'S ELECTRIC FIELDS & WAVES  
 07/02/1990 - 10/17/2000 FY00: \$0 Total: \$6,450,700  
*Prin. Invest.:* F MOZER  
*Tech. Officer:* GSFC/L CHRISTENSEN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 31429 UNIVERSITY OF CALIFORNIA - BERKELEY 2247**  
 SYSTEM DESIGN PHASE OF REFLECTION GRATING ASSEMBLY  
 12/28/1990 - 03/20/2000 FY00: \$74,469 Total: \$13,552,150  
*Prin. Invest.:* S KAHN  
*Tech. Officer:* GSFC/R DONNELLY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAS 5 96092 UNIVERSITY OF CALIFORNIA - BERKELEY 2248**  
 EOS-BIOSPHERE ATMOSPHERIC INTERACTIONS STUDY  
 10/11/1996 - 06/30/2000 FY00: \$0 Total: \$325,000  
*Prin. Invest.:* P MATSON  
*Tech. Officer:* GSFC/P SELLERS  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 98033 UNIVERSITY OF CALIFORNIA - BERKELEY 2249**  
 PHASE A CONCEPT STUDY FOR HESSI INVESTIGATION  
 11/19/1997 - 10/19/2003 FY00: \$7,532,000 Total: \$36,909,000  
*Prin. Invest.:* R P LIN  
*Tech. Officer:* GSFC/F SNOW  
*CASE Category:* 11 - ASTRONOMY

**NAS 5 98171 UNIVERSITY OF CALIFORNIA - BERKELEY 2250**  
 NGST INTEGRATED SCIENCE INSTRUMENT MODULE (ISIM) CONCEPT  
 STUDY  
 07/02/1998 - 12/31/1999 FY00: \$0 Total: \$25,100  
*Prin. Invest.:* J R GRAHAM, NONE  
*Tech. Officer:* GSFC/L R PURVES  
*CASE Category:* 11 - ASTRONOMY

**NAS 5 99242 UNIVERSITY OF CALIFORNIA - BERKELEY 2251**  
 FAST FLIGHT OPERATIONS  
 10/01/1999 - 09/30/2001 FY00: \$294,900 Total: \$294,900  
*Prin. Invest.:* C W CARLSON  
*Tech. Officer:* GSFC/R PFAFF  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 142 UNIVERSITY OF CALIFORNIA - BERKELEY 2252**  
 DETECTION IDENTIFICATION AND PRECISE LOCATION OF INFRARED  
 OBJECTS  
 07/01/1981 - 05/31/2001 FY00: \$0 Total: \$1,439,572  
*Prin. Invest.:* C E HEILES, M COHEN  
*Tech. Officer:* ARC/D GOORVITCH  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 909 UNIVERSITY OF CALIFORNIA - BERKELEY 2253**  
 HUMAN PERFORMANCE IN COORDINATED HAPTIC-VISUAL VIRTUAL ENVI-  
 RONMENTS  
 06/26/1995 - 02/29/2000 FY00: \$0 Total: \$984,336  
*Prin. Invest.:* H KAZERAONI  
*Tech. Officer:* ARC/S R ELLIS  
*CASE Category:* 46 - MECHANICAL ENGR

**NCC 2 966 UNIVERSITY OF CALIFORNIA - BERKELEY 2254**  
 VALIDATION OF NEW MILLENNIUM TECHNOLOGIES WITH THE EXTREME  
 ULTRAVIOLET EXPLORER OBSERVATORY  
 08/20/1996 - 06/30/1999 FY00: \$0 Total: \$300,000  
*Prin. Invest.:* R F MALINA *Prin. Invest.:* NONE  
*Tech. Officer:* ARC/D J KORSMEYER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 1080 UNIVERSITY OF CALIFORNIA - BERKELEY 2255**  
 THE CENTER FOR STAR FORMATION STUDIES  
 01/25/1999 - 12/14/2000 FY00: \$91,385 Total: \$377,205  
*Prin. Invest.:* F H SHU  
*Tech. Officer:* ARC/D J HOLLENBACH, ARC/P CASSEN  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 1125 UNIVERSITY OF CALIFORNIA - BERKELEY 2256**  
 THE EXTRACTION OF POINT SOURCES FROM THE NIRS SPECTROMETER  
 ABOARD THE INFRARED TELESCOPE IN SPACE  
 06/14/1999 - 05/31/2001 FY00: \$0 Total: \$28,000  
*Prin. Invest.:* M COHEN  
*Tech. Officer:* ARC/D GOORVITCH  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 1171 UNIVERSITY OF CALIFORNIA - BERKELEY 2257**  
 3DOF HAPTIC SIMULATION AND PHYCHOPHYSICAL EXPERIMENT  
 04/11/2000 - 12/14/2000 FY00: \$120,000 Total: \$120,000  
 Prin. Invest.: H KAZEROONI  
 Tech. Officer: ARC/S R ELLIS  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 2 5192 UNIVERSITY OF CALIFORNIA - BERKELEY 2258**  
 INTERSTELLAR MOLECULES IN THE PROTOSOLAR NEBULA  
 12/18/1996 - 10/31/1998 FY00: \$0 Total: \$80,000  
 Prin. Invest.: I DE PATER  
 Tech. Officer: ARC/D HOLLENBACH  
 CASE Category: 11 - ASTRONOMY

**NCC 2 5218 UNIVERSITY OF CALIFORNIA - BERKELEY 2259**  
 CALCULATION OF REACTING GAS FLOWS BY COMPUTATIONAL FLUID  
 DYNAMICS CODE WITH SPACE APPLICATIONS  
 05/22/1997 - 03/31/1999 FY00: \$0 Total: \$80,000  
 Prin. Invest.: M HOLT  
 Tech. Officer: ARC/M LOOMIS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5259 UNIVERSITY OF CALIFORNIA - BERKELEY 2260**  
 A STUDY OF THE BALLISTIC RANGE FOR AERODYNAMIC TESTING OF  
 PLANETARY VEHICLES  
 03/17/1998 - 06/30/1999 FY00: -\$2,781 Total: \$37,219  
 Prin. Invest.: G CHAMPMAN  
 Tech. Officer: ARC/P F WERCINSKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5287 UNIVERSITY OF CALIFORNIA - BERKELEY 2261**  
 AUTOMATED SOFTWARE ENGINEERING FOR AUTONOMOUS DATA ANAL-  
 YSIS UNDER CONSTRAINED RESOURCES  
 08/10/1998 - 06/30/1999 FY00: \$0 Total: \$94,984  
 Prin. Invest.: R A NEWTON  
 Tech. Officer: ARC/LOWRY  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5289 UNIVERSITY OF CALIFORNIA - BERKELEY 2262**  
 THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM  
 08/13/1998 - 09/30/2000 FY00: \$39,892 Total: \$132,599  
 Prin. Invest.: C F MCKEE  
 Tech. Officer: ARC/D J HOLLENBACH  
 CASE Category: 11 - ASTRONOMY

**NCC 2 5334 UNIVERSITY OF CALIFORNIA - BERKELEY 2263**  
 A STUDY OF THE STATIC & DYNAMIC AERODYNAMICS CHARACTERISTICS  
 OF BLUNT PLANETARY PROBES  
 07/19/1999 - 07/14/2001 FY00: \$65,000 Total: \$80,000  
 Prin. Invest.: G T CHAPMAN, M BROWN, A RAMSEY  
 Tech. Officer: ARC/P F WERCINSKI, ARC/T C TAM  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5388 UNIVERSITY OF CALIFORNIA - BERKELEY 2264**  
 TOW-TANK STUDIES OF HELICOPTER VORTEX WAKE  
 07/14/2000 - 10/14/2000 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: O SAVAS  
 Tech. Officer: ARC/F CARADONNA, ARC/C TUNG  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 3 478 UNIVERSITY OF CALIFORNIA - BERKELEY 2265**  
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRA-  
 VITY  
 05/29/1996 - 05/31/2000 FY00: \$42,792 Total: \$220,100  
 Prin. Invest.: A C FERNANDEZ-PELLO  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 803 UNIVERSITY OF CALIFORNIA - BERKELEY 2266**  
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY  
 05/31/2000 - 04/30/2004 FY00: \$53,000 Total: \$53,000  
 Prin. Invest.: D FERNANDEZ-PELLO  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 5 138 UNIVERSITY OF CALIFORNIA - BERKELEY 2267**  
 EXTENDED EUVE MISSION  
 08/21/1996 - 11/30/2000 FY00: \$670,000 Total: \$8,484,582  
 Prin. Invest.: R MALINA  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NCC 5 253 UNIVERSITY OF CALIFORNIA - BERKELEY 2268**  
 THE SUN-EARTH CONNECTION EDUCATION FORUM  
 10/30/1997 - 11/14/2000 FY00: \$1,138,333 Total: \$2,453,333  
 Prin. Invest.: I HAWKINS  
 Tech. Officer: GSFC/J THIEMAN  
 CASE Category: 13 - PHYSICS

**NCC 5 352 UNIVERSITY OF CALIFORNIA - BERKELEY 2269**  
 SOIL BIOGEOCHEMISTRY OF CARBON, NUTRIENTS, & TRACE GASES IN  
 THE AMAZON REGION OF BRAZIL: FIELD & MOD  
 07/28/1998 - 07/31/2001 FY00: \$60,568 Total: \$197,350  
 Prin. Invest.: W SILVER  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 492 UNIVERSITY OF CALIFORNIA - BERKELEY 2270**  
 EO-1 & LANDSAT IMAGERY FOR MONITORING CALIFORNIA'S CONIFER  
 FOREST & HARDWOOD RANGELAND  
 04/12/2000 - 12/31/2000 FY00: \$58,593 Total: \$58,593  
 Prin. Invest.: P GONG  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 2 52233 UNIVERSITY OF CALIFORNIA - BERKELEY 2271**  
 CHARACTERIZATION OF MICROBIAL DIVERSITY IN YELLOWSTONE FUMAR-  
 OLES: THE SEARCH FOR PRIMITIVE LIFE IN  
 08/26/1997 - 07/31/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: N R PACE  
 Tech. Officer: ARC/D J DES MARAIS  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NGT 2 52258 UNIVERSITY OF CALIFORNIA - BERKELEY 2272**  
 HIGH-RESOLUTION GROUND-BASED MAPPING OF TITAN'S SURFACE &  
 HAZE LAYER  
 08/11/1999 - 07/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: I DE PATER  
 Tech. Officer: ARC/C P MCKAY  
 CASE Category: 11 - ASTRONOMY

**NGT 2 52259 UNIVERSITY OF CALIFORNIA - BERKELEY 2273**  
 A SURGICAL AUGMENTED REALITY VISUALIZATION SYSTEM  
 09/07/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: S S SASTRY  
 Tech. Officer: ARC/J D SMITH/E M HOLTON  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 83 UNIVERSITY OF CALIFORNIA - BERKELEY 2274**  
 SUPERFLUID ANALOG OF THE DC-SQUID FOR MEASURING ABSOLUTE  
 ROTATION (STUDENT - RAYMOND SIMONDS)  
 05/18/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: J C DAVIS  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 13 - PHYSICS

**NGT 5 30006 UNIVERSITY OF CALIFORNIA - BERKELEY 2275**  
 HYDROLOGIC CONTROLS ON NUTRIENT CYCLING AND TROPHI  
 CALIFORNIA RIVER ECOSYSTEMS  
 10/11/1996 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: M POWER  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30044 UNIVERSITY OF CALIFORNIA - BERKELEY 2276**  
 THE RELATIONSHIP BETWEEN SOIL AGE, LAND USE AND C VALLEY OF  
 CALIFORNIA  
 12/12/1996 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D G AMUNDSON  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30071 UNIVERSITY OF CALIFORNIA - BERKELEY 2277**  
 PREDICTING WHEN VEGETATION CHANGE MATTERS TO ECOSY ONING  
 09/09/1997 - 08/31/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: M FIRESTONE  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30075 UNIVERSITY OF CALIFORNIA - BERKELEY 2278**  
 THE EFFECT OF WATER ON CARBON CYCLING AND SOIL CAR ECIPITATION  
 ECOSYSTEMS  
 09/09/1997 - 08/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: D MATSON  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30110 UNIVERSITY OF CALIFORNIA - BERKELEY 2279**  
 A STUDY OF MEV TERRESTRIAL X-RAY BURSTS  
 05/11/1998 - 07/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: R P LIN/MILLAN  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 11 - ASTRONOMY

**NGT 5 30141 UNIVERSITY OF CALIFORNIA - BERKELEY 2280**  
 PHOSPHORUS CYCLING OF LAND USE GRADIENT ON TWO SOIL  
 TEXTURES IN A LOWLAND TROPICAL FOREST  
 08/27/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: W L SILVER, MCGRODDY  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30183 UNIVERSITY OF CALIFORNIA - BERKELEY 2281**  
 MEASUREMENT & MODELING OF CARBON, WATER & ENERGY OVER A  
 CALIFORNIA OAK SAVANNA: LINKING THE BIOPHYS  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: T L BENNING  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30219 UNIVERSITY OF CALIFORNIA - BERKELEY 2282**  
 ATMOSPHERIC NO2: LASER-INDUCED FLUORESCENCE DETECT ION AT  
 THE PART PER TRILLION LEVEL FROM AIRCRAFT  
 08/24/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: R C COHEN  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTALSCI, OTHER

**NGT 5 30351 UNIVERSITY OF CALIFORNIA - BERKELEY 2283**  
 THE IMPLICATIONS OF MICROBIAL DECOMPOSITION ON THE DISTRIBUTION  
 OF STABLEC & N ISOTOPES IN TERRESTRIA  
 08/24/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: I CHAPELA  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30361 UNIVERSITY OF CALIFORNIA - BERKELEY 2284**  
 INTEGRATING REMOTELY SENSED AFFORESTATION POTENTIAL WITH  
 CREDIT TRADING & TECHNICAL LEARNING IN MOD  
 08/24/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: I FUNG  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50048 UNIVERSITY OF CALIFORNIA - BERKELEY 2285**  
 CONTINUOUS WAVE OPERATION OF FAR-INFRARED GERMANIUM S  
 07/17/1997 - 07/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: E HALLER  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50052 UNIVERSITY OF CALIFORNIA - BERKELEY 2286**  
 NUCLEAR BURNING ON RAPIDLY ACCRETING X-RAY PULSARS  
 07/17/1997 - 08/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: L BILDSTEN  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50061 UNIVERSITY OF CALIFORNIA - BERKELEY 2287**  
 ION OUTFLOW FROM THE AURORAL IONOSPHERE  
 08/04/1997 - 12/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: CHARLES  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50066 UNIVERSITY OF CALIFORNIA - BERKELEY 2288**  
 DEVELOPMENT OF A SUPERFLUID HELIUM-4 GYROSCOPE  
 09/05/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D PACKARD  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50072 UNIVERSITY OF CALIFORNIA - BERKELEY 2289**  
 MUSCLE OXYGENATION AS AN OBJECTIVE METHOD TO EVALU PACE  
 STATION GLOVEBOX DESIGN  
 09/02/1997 - 06/30/1999 FY00: -\$1,384 Total: \$42,616  
 Prin. Invest.: S HAMMOND  
 Tech. Officer: GSFC/L CHAMBERS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50079 UNIVERSITY OF CALIFORNIA - BERKELEY 2290**  
 GRAVITATIONAL LENSING BY LARGE SCALE STRUCTURE  
 09/11/1997 - 08/14/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: J SILK  
 Tech. Officer: HQ/A NURRIDDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50157 UNIVERSITY OF CALIFORNIA - BERKELEY 2291**  
 THE COMPOSITION OF THE ACTINIDES IN GALACTIC COSMI  
 09/11/1997 - 09/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: P PRICE  
 Tech. Officer: HQ/A NURRIDDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50188 UNIVERSITY OF CALIFORNIA - BERKELEY 2292**  
 DIAMONDS IN GIANT PLANETS? EXPERIMENTS ON "PLANETARY ICES" AT  
 HIGH PRESSURES AND TEMPERATURES  
 05/27/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: R JEANLOZ  
 Tech. Officer: HQ/A NURRIDDIN  
 CASE Category: 13 - PHYSICS

**NGT 5 50189 UNIVERSITY OF CALIFORNIA - BERKELEY 2293**  
 DETERMINATION OF COSMOLOGICAL PARAMETERS THROUGH COSMIC  
 MICROWAVE BACKGROUND OBSERVATIONS WITH THE  
 05/27/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: G SMOOT  
 Tech. Officer: HQ/A NURRIDDIN  
 CASE Category: 13 - PHYSICS

**NGT 5 50195 UNIVERSITY OF CALIFORNIA - BERKELEY 2294**  
 BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE COSMIC  
 MICROWAVE BACKGROUND ON ANGULAR SCALES  
 06/04/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: P L RICHARDS  
 Tech. Officer: HQ/A NURRIDDIN  
 CASE Category: 13 - PHYSICS

**NGT 5 50196 UNIVERSITY OF CALIFORNIA - BERKELEY 2295**  
 FRAGMENTATION IN COLLAPSING NON-ISOTHERMAL MOLECULAR  
 CLOUDS  
 06/04/1998 - 09/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: C F MCKEE  
 Tech. Officer: HQ/A NURRIDDIN  
 CASE Category: 13 - PHYSICS

**NGT 5 50216 UNIVERSITY OF CALIFORNIA - BERKELEY 2296**  
 ABOVEGROUND AND BELOWGROUND PLANT SPECIES FUNCTIONAL  
 TRAITS AND THEIR RELATION TO ECOSYSTEM FUNCTION  
 09/15/1998 - 08/31/2001 FY00: \$14,667 Total: \$58,667  
 Prin. Invest.: F S CHAPIN, III  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50223 UNIVERSITY OF CALIFORNIA - BERKELEY 2297**  
 REGIONAL CHANGES IN EXTREME EVENT FREQUENCIES WITHIN THE  
 UNITED STATES (STUDENT: DIANA DERUBERTIS)  
 09/29/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: O E GRANGER, D DERUBERTIS  
 Tech. Officer: HQ/A NURRIDDIN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50245 UNIVERSITY OF CALIFORNIA - BERKELEY 2298**  
 INFRARED SPECTROSCOPY OF STAR FORMATION IN SUPER STAR CLUS-  
 TERS WITH KECK/NIRSPEC (STUDENT: ANDRE)  
 06/02/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: J GRAHAM  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50253 UNIVERSITY OF CALIFORNIA - BERKELEY 2299**  
 X-RAY SPECTROSCOPY OF EVOLVED SUPERNOVA REMNANTS  
 06/07/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: C F MCKEE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50331 UNIVERSITY OF CALIFORNIA - BERKELEY 2300**  
 EFFECTS OF OXIC-ANOXIC DYNAMICS ON METHANE EFFLUX & STABLE  
 ISOTOPE COMPOSITION IN HUMID TROPICAL  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: W SILVER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2006 UNIVERSITY OF CALIFORNIA - DAVIS 2301**  
 PREDICTION OF FLOWS ABOUT FOREBODIES AT HIGH ANGLE OF-ATTACK  
 DYNAMIC CONDITIONS  
 02/12/1998 - 07/30/1999 FY00: \$0 Total: \$49,083  
 Prin. Invest.: C P VAN DAM  
 Tech. Officer: LARC/C M FREMAUX  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2215 UNIVERSITY OF CALIFORNIA - DAVIS 2302**  
 AERO-MECHANICAL DESIGN METHODOLOGY FOR SUBSONIC CIVIL  
 TRANSPORT HIGH-LIFT SYSTEMS  
 07/20/1999 - 12/31/2000 FY00: \$32,067 Total: \$54,971  
 Prin. Invest.: C P VAN-DAM  
 Tech. Officer: LARC/P A GELHAUSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 944 UNIVERSITY OF CALIFORNIA - DAVIS 2303**  
 CNS CONTROL OF RHYTHMS & HOMEOSTASIS DURING SPACE FLIGHT  
 12/21/1994 - 12/31/2000 FY00: \$0 Total: \$624,482  
 Prin. Invest.: C A FULLER  
 Tech. Officer: ARC/W E HINDS, ARC/C M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 983 UNIVERSITY OF CALIFORNIA - DAVIS 2304**  
 EFFECTS OF GRAVITY ON INSECT CIRCADIAN RHYTHMICITY  
 05/25/1995 - 06/30/2000 FY00: \$0 Total: \$651,093  
 Prin. Invest.: T M HOBAN-HIGGINS, C A FULLER, G X WASSMER  
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1019 UNIVERSITY OF CALIFORNIA - DAVIS 2305**  
 MICROGRAVITY EFFECTS ON DEVELOPING VESTIBULAR AFFE RENTS  
 (NEUROLAB)  
 01/22/1996 - 03/31/2001 FY00: \$0 Total: \$577,426  
*Prin. Invest.:* B CHAPMAN  
*Tech. Officer:* ARC/W E HINDS, ARC/C M WINGET  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1216 UNIVERSITY OF CALIFORNIA - DAVIS 2306**  
 TOWARDS REAL-TIME VECTOR FIELD VISUALIZATION FOR M ASSIVE &  
 MULTI-SOURCE DATA USING HIERARCHIES  
 05/04/1998 - 12/31/2000 FY00: \$74,822 Total: \$199,193  
*Prin. Invest.:* B HAMANN  
*Tech. Officer:* ARC/A VAZIRI, ARC/M G YAMASAKI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1251 UNIVERSITY OF CALIFORNIA - DAVIS 2307**  
 DENIAL OF SERVICE IN THE INFRASTRUCTURE  
 08/19/1998 - 09/30/1999 FY00: \$0 Total: \$98,873  
*Prin. Invest.:* M BISHOP  
*Tech. Officer:* ARC/C M FALSETTI, ARC/B H WHITAKER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1265 UNIVERSITY OF CALIFORNIA - DAVIS 2308**  
 ADAPTATION OF RHESUS MACAQUES TO A HYPERDYNAMIC EN VIRON-  
 MENT  
 09/14/1998 - 12/31/2000 FY00: \$312,146 Total: \$757,146  
*Prin. Invest.:* C A FULLER  
*Tech. Officer:* ARC/R E GRINDELAND, ARC/K L SOUZA  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 2 1404 UNIVERSITY OF CALIFORNIA - DAVIS 2309**  
 EFFECTS OF GRAVITY ON INSECT CIRCADIAN RHYTHMICITY  
 04/27/2000 - 06/30/2001 FY00: \$196,951 Total: \$196,951  
*Prin. Invest.:* T M HOBAN-HIGGINS  
*Tech. Officer:* ARC/R D MACELROY, ARC/M M AVERNER  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1442 UNIVERSITY OF CALIFORNIA - DAVIS 2310**  
 REMOTE AGRICULTURAL MONITORING HYPERSPECTRAL IMAGE RY WITH  
 AN UPDATED AERIAL VEHICLE  
 09/27/2000 - 12/31/2000 FY00: \$90,000 Total: \$90,000  
*Prin. Invest.:* S USTIN  
*Tech. Officer:* ARC/S S WEGENER, ARC/R S HIPSKIN  
*CASE Category:* 55 - AGRICULTURE

**NAG 3 2153 UNIVERSITY OF CALIFORNIA - DAVIS 2311**  
 EXPERIMENTAL STUDIES OF MULTIPHASE MATERIALS USING NUCLEAR  
 MAGNETIC RESONANCE  
 05/13/1998 - 03/08/2002 FY00: \$75,000 Total: \$171,000  
*Prin. Invest.:* B L POWELL, S DUGAN, R PHILLIPS  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 43 - CHEMICAL ENGR

**NAG 5 3001 UNIVERSITY OF CALIFORNIA - DAVIS 2312**  
 AIRBORNE LASER ALTIMETRIC MONITORING OF THE RAPID EVOLUTION OF  
 TOPOGRAPHY IN LONGVALLEY, CALIF....  
 07/14/1995 - 07/31/2000 FY00: \$0 Total: \$194,646  
*Prin. Invest.:* J MINSTER  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3959 UNIVERSITY OF CALIFORNIA - DAVIS 2313**  
 FATNESS, FOOD INTAKE AND HYPERGRAVITY: RESPONSES O  
 03/17/1997 - 12/31/1999 FY00: \$0 Total: \$239,000  
*Prin. Invest.:* B HORWITZ  
*Tech. Officer:* GSFC/V SCHNEIDER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 4320 UNIVERSITY OF CALIFORNIA - DAVIS 2314**  
 CIRCADIAN RHYTHMS IN RHESUS, GRAVITYL LIGHT AND GE  
 04/04/1997 - 06/30/1999 FY00: \$0 Total: \$181,876  
*Prin. Invest.:* C A FULLER  
*Tech. Officer:* GSFC/V SCHNEIDER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 4711 UNIVERSITY OF CALIFORNIA - DAVIS 2315**  
 MEASURING PHOTOCHEMICAL BRANCHING RATIOS FOR COMET USING  
 THE ADVANCED LIGHT SOURCE AT THE CHEMICAL D  
 06/11/1997 - 04/30/1999 FY00: \$0 Total: \$170,000  
*Prin. Invest.:* D M JACKSON  
*Tech. Officer:* GSFC/J BERGSTALH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 6246 UNIVERSITY OF CALIFORNIA - DAVIS 2316**  
 MARS BOUNDARY LAYER STABILITY EXPERIMENTS OF DUST  
 08/19/1997 - 07/14/2000 FY00: \$14,437 Total: \$145,400  
*Prin. Invest.:* D WHITE  
*Tech. Officer:* GSFC/J BERGSTALH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 6440 UNIVERSITY OF CALIFORNIA - DAVIS 2317**  
 EFFECT OF GRAVITY ON THE REGULATION OF CIRCADIAN R HYTHMS  
 11/03/1997 - 06/30/2000 FY00: \$0 Total: \$118,910  
*Prin. Invest.:* D MURAKAMI  
*Tech. Officer:* GSFC/V SCHNEIDER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 7046 UNIVERSITY OF CALIFORNIA - DAVIS 2318**  
 X-RAY PROPERTIES OF A LARGE SAMPLE OF BL LACERTAE OBJECTS:  
 DEFINING THE TRANSITION BETWEEN RADIO- AN  
 02/18/1998 - 02/28/1999 FY00: \$0 Total: \$48,500  
*Prin. Invest.:* S LAURENT-MUEHLEI  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7216 UNIVERSITY OF CALIFORNIA - DAVIS 2319**  
 USE OF HYPER-SPECTRAL IMAGERY TO IDENTIFY AND MAP LEAFY  
 SPURGE INFESTA- TIONS AT THEODORE ROOSEVELT  
 03/31/1998 - 03/31/2000 FY00: \$12,438 Total: \$115,123  
*Prin. Invest.:* S L USTIN  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7441 UNIVERSITY OF CALIFORNIA - DAVIS 2320**  
 GEOMETRIC PARAMETERIZATION OF RAINFALL FIELDS  
 06/02/1998 - 06/14/2001 FY00: \$51,000 Total: \$131,000  
*Prin. Invest.:* C E PUENTE  
*Tech. Officer:* GSFC/R W LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7649 UNIVERSITY OF CALIFORNIA - DAVIS 2321**  
 "THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO  
 PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS  
 09/03/1998 - 12/31/1999 FY00: \$0 Total: \$36,000  
*Prin. Invest.:* W REISEN  
*Tech. Officer:* GSFC/B W MESSON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8258 UNIVERSITY OF CALIFORNIA - DAVIS 2322**  
 ION IMAGING STUDIES OF VUV PHOTODISSOCIATION OF CO METARY  
 PARENT MOLECULES  
 02/17/1999 - 03/31/2001 FY00: \$97,133 Total: \$228,521  
*Prin. Invest.:* W JACKSON  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8391 UNIVERSITY OF CALIFORNIA - DAVIS 2323**  
 X-RAY PROPERTIES OF DEEP-RADIO-SELECTED QUASARS (A DP98)  
 03/05/1999 - 03/14/2001 FY00: \$52,548 Total: \$102,548  
*Prin. Invest.:* R H BECKER  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8430 UNIVERSITY OF CALIFORNIA - DAVIS 2324**  
 THE FORMATION OF GALAXY CLUSTERS (LTS 98)  
 05/10/1999 - 05/14/2001 FY00: \$89,765 Total: \$179,530  
*Prin. Invest.:* S STANFORD  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8586 UNIVERSITY OF CALIFORNIA - DAVIS 2325**  
 SUPPORT OF THE INTERNATIONAL CONGRESS MANAGING FOR  
 ECOSYSTEM HEALTH, 15-20 AUGUST 1999, SACRAMENTO  
 06/28/1999 - 06/30/2000 FY00: \$0 Total: \$48,500  
*Prin. Invest.:* C O QUALSET  
*Tech. Officer:* GSFC/B W MESSON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8823 UNIVERSITY OF CALIFORNIA - DAVIS 2326**  
 CONFERENCE: 7TH INTERNATIONAL SYMPOSIUM ON PARTICLES,  
 STRINGS & COSMOLOGY, DECEMBER 1999 - PASCOS-9  
 09/09/1999 - 12/16/1999 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* J GUNION  
*Tech. Officer:* GSFC/P CRANE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9025 UNIVERSITY OF CALIFORNIA - DAVIS 2327**  
 "ERROR CONTROL CODING TECHNIQUES FOR SPACE & SATELLITE  
 COMMUNICATIONS"  
 02/09/2000 - 02/28/2001 FY00: \$70,000 Total: \$70,000  
*Prin. Invest.:* S LIN  
*Tech. Officer:* GSFC/W H MILLER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 9360 UNIVERSITY OF CALIFORNIA - DAVIS 2328**  
 NEW EOS DATA PRODUCTS TO IMPROVE BIOGEOCHEMICAL ESTIMATES  
 04/06/2000 - 04/30/2001 FY00: \$176,825 Total: \$176,825  
*Prin. Invest.:* S USTIN  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9540 UNIVERSITY OF CALIFORNIA - DAVIS 2329**  
 X-RAY PROPERTIES OF DEEP-RADIO-SELECTED QUASARS (A DP98)  
 05/02/2000 - 05/31/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* N ARAV  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9897 UNIVERSITY OF CALIFORNIA - DAVIS 2330**  
 A JOINT DEEP XMM/AXAF SURVEY IN THE LYNX.3A FIELD  
 09/06/2000 - 09/14/2001 FY00: \$7,900 Total: \$7,900  
*Prin. Invest.:* S A STANFORD  
*Tech. Officer:* GSFC/R F MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9947 UNIVERSITY OF CALIFORNIA - DAVIS 2331**  
 X-RAYS FROM RADIO-LOUD BROAD ABSORPTION LINE QSOs  
 09/06/2000 - 09/14/2001 FY00: \$15,500 Total: \$15,500  
*Prin. Invest.:* R H BECKER  
*Tech. Officer:* GSFC/R F MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1143 UNIVERSITY OF CALIFORNIA - DAVIS 2332**  
 THE GLOBAL ATMOSPHERIC RESPONSE TO LOCALIZED LOW FREQUENCY  
 FORCING  
 05/24/1995 - 03/31/2001 FY00: \$0 Total: \$177,000  
*Prin. Invest.:* T R NATHAN  
*Tech. Officer:* MSFC/T L MILLER, MSFC/S H CHOW  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 9 1048 UNIVERSITY OF CALIFORNIA - DAVIS 2333**  
 MESOSCOPIC INSTRUMENTATION MINITURE FTIR FOR ENVIRONMENTAL  
 MONITORING  
 08/13/1998 - 08/04/2000 FY00: \$0 Total: \$182,783  
*Prin. Invest.:* S D COLLINS  
*Tech. Officer:* HQ/D L JAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAGW 4552 UNIVERSITY OF CALIFORNIA - DAVIS 2334**  
 EFFECT OF GRAVITY ON THE REGULATION OF CIRCADIAN RHYTHMS  
 06/28/1995 - 03/31/1999 FY00: -\$799 Total: \$244,731  
*Prin. Invest.:* D M MURAKAMI  
*Tech. Officer:* HQ/V SCHNEIDER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG13 99023 UNIVERSITY OF CALIFORNIA - DAVIS 2335**  
 USING REMOTE SENSING TO MONITOR THE IMPACTS OF FLOOD-IRRIGA-  
 TION OF MEADOWS IN EAST WALKER RIVER  
 08/25/1999 - 11/01/2000 FY00: \$79,671 Total: \$171,573  
*Prin. Invest.:* D W TATE  
*Tech. Officer:* SSC/R MCKELLIP  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NCC 1 345 UNIVERSITY OF CALIFORNIA - DAVIS 2336**  
 DEVELOPMENT OF A DESIGN METHODOLOGY FOR RECONFIGURABLE  
 FLIGHT CONTROL SYSTEMS  
 07/06/1999 - 07/14/2000 FY00: \$25,121 Total: \$50,242  
*Prin. Invest.:* R A HESS  
*Tech. Officer:* GSFC/B J BACON  
*CASE Category:* 41 - AERONAUTICAL ENGR



**NCC 2 886 UNIVERSITY OF CALIFORNIA - DAVIS 2337**  
 EFFECT OF SPACEFLIGHT ON THE DEVELOPMENT OF THE CIRCADIAN  
 TIMING SYSTEM  
 02/06/1995 - 09/30/1998 FY00: \$0 Total: \$537,551  
 Prin. Invest.: C A FULLER  
 Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/C M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 905 UNIVERSITY OF CALIFORNIA - DAVIS 2338**  
 PERCEPTUAL AND MOTOR RESPONSES TO VISUAL DISPLAYS  
 06/21/1995 - 08/31/1999 FY00: \$0 Total: \$65,000  
 Prin. Invest.: R B POST  
 Tech. Officer: ARC/R B WELCH  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NCC 2 1011 UNIVERSITY OF CALIFORNIA - DAVIS 2339**  
 EFFICIENT PARALLEL ALGORITHMS FOR INVISCID & VISCOUS FLOW  
 SIMULATION  
 01/27/1998 - 01/31/2001 FY00: \$73,583 Total: \$215,662  
 Prin. Invest.: M HAFEZ, J CHATTAT  
 Tech. Officer: ARC/D KWAK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 1131 UNIVERSITY OF CALIFORNIA - DAVIS 2340**  
 EYE MOVEMENT VISUAL PERCEPTION & CONTROL  
 07/23/1999 - 02/28/2001 FY00: \$32,864 Total: \$45,222  
 Prin. Invest.: R A HESS  
 Tech. Officer: ARC/L S SROUE, ARC/B SWEET  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 1183 UNIVERSITY OF CALIFORNIA - DAVIS 2341**  
 MODELING ROTORCRAFT INTERACTION WITH ATMOSPHERIC TURBULENCE  
 IN LOW-SPEED AND HOVERING FLIGHT  
 06/07/2000 - 05/31/2001 FY00: \$52,417 Total: \$52,417  
 Prin. Invest.: R HESS  
 Tech. Officer: ARC/M B TISCHER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5201 UNIVERSITY OF CALIFORNIA - DAVIS 2342**  
 AN ANJOINT BASED DESIGN METHOD FOR THE COUPLED EULER/INTEGRAL  
 BOUNDARY LAYER EQUATION  
 12/23/1996 - 09/30/1998 FY00: -\$31 Total: \$70,776  
 Prin. Invest.: J CHATTAT  
 Tech. Officer: ARC/S C SMITH  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5214 UNIVERSITY OF CALIFORNIA - DAVIS 2343**  
 MATERIAL CHARACTERIZATION FOR DUCTILE FRACTURE PREDICTION  
 05/13/1997 - 06/30/1999 FY00: \$0 Total: \$68,493  
 Prin. Invest.: M R HILL  
 Tech. Officer: ARC/T L PANONTIN  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 2 5223 UNIVERSITY OF CALIFORNIA - DAVIS 2344**  
 MULTI-VIEW ANGLE SPECTRAL UNMIXING POLDER IMAGE DATA  
 06/24/1997 - 03/31/2000 FY00: \$0 Total: \$80,162  
 Prin. Invest.: S USTIN  
 Tech. Officer: ARC/V C VANDERBILT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 5229 UNIVERSITY OF CALIFORNIA - DAVIS 2345**  
 CONVERGENCE ACCELERATION OF HIGH SPEED FLOW SIMULATIONS  
 07/17/1997 - 05/31/1999 FY00: \$0 Total: \$40,000  
 Prin. Invest.: M HAFEZ  
 Tech. Officer: ARC/D KWAK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5238 UNIVERSITY OF CALIFORNIA - DAVIS 2346**  
 DEVELOPING A METHODOLOGY TO INCLUDE PILOT BEHAVIOR AND  
 PERCEPTUAL CHARACTERISTICS FOR GROUND-BASED.  
 08/26/1997 - 05/31/1999 FY00: \$0 Total: \$62,658  
 Prin. Invest.: R HESS  
 Prin. Invest.: NONE  
 Tech. Officer: ARC/D TRAN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5255 UNIVERSITY OF CALIFORNIA - DAVIS 2347**  
 HIGH-LIFT DESIGN METHOD FOR SUBSONIC CIVIL TRANSPORT AIRCRAFT  
 02/04/1998 - 06/30/1999 FY00: \$0 Total: \$78,180  
 Prin. Invest.: C P VAN DAM  
 Tech. Officer: ARC/D J KINNEY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5292 UNIVERSITY OF CALIFORNIA - DAVIS 2348**  
 IMPLEMENTATION OF PARALLEL COMPUTING TECHNOLOGY  
 09/09/1998 - 08/31/1999 FY00: \$0 Total: \$90,000  
 Prin. Invest.: M HAFEZ, J S Dacles-MARIANI  
 Tech. Officer: ARC/D KWAK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5308 UNIVERSITY OF CALIFORNIA - DAVIS 2349**  
 NUMERICAL SIMULATION OF TIME-DEPENDENT VISCOUS FLOWS ABOUT  
 WIND TURBINES  
 02/23/1999 - 04/30/2001 FY00: \$40,000 Total: \$85,173  
 Prin. Invest.: C P VANDAM  
 Tech. Officer: ARC/E N DUQUE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5313 UNIVERSITY OF CALIFORNIA - DAVIS 2350**  
 DEVELOPING & VALIDATING ROTORCRAFT SIMULATION MODELS  
 04/02/1999 - 12/31/2000 FY00: \$18,981 Total: \$58,981  
 Prin. Invest.: J DONGARRA  
 Tech. Officer: ARC/S DAINI  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5329 UNIVERSITY OF CALIFORNIA - DAVIS 2351**  
 PARALLEL PERFORMANCE EVALUATION OF NAVIER-STOKES COMPUTATIONS  
 FOR LARGE SCALE ENGINEERING PROBLEMS  
 07/01/1999 - 06/30/2000 FY00: \$63,000 Total: \$95,000  
 Prin. Invest.: M HAFEZ  
 Tech. Officer: ARC/D KWAK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5343 UNIVERSITY OF CALIFORNIA - DAVIS 2352**  
 EXPLORING THE BRDF POTENTIAL OF POLARIZED REFLECTANCE  
 08/11/1999 - 11/30/2000 FY00: \$55,700 Total: \$108,500  
 Prin. Invest.: S L USTIN  
 Tech. Officer: ARC/V C VANDERBILT, ARC/E P CONDON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 5369 UNIVERSITY OF CALIFORNIA - DAVIS 2353**  
 DEVELOPMENT OF FLIGHT SIMULATOR FIDELITY ASSESSMENT TOOLS  
 03/21/2000 - 12/31/2000 FY00: \$23,648 Total: \$23,648  
 Prin. Invest.: R A HESS  
 Tech. Officer: ARC/D TRAN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5387 UNIVERSITY OF CALIFORNIA - DAVIS 2354**  
 DEVELOPMENT & APPLICATION OF A DATA MANAGEMENT TECHNIQUE  
 WITHIN A DISTRIBUTED COMPUTING ENVIRONMENT  
 06/23/2000 - 02/28/2001 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: M HAFEZ, J S DACLES-MARIANI  
 Tech. Officer: ARC/D KWAK  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 3 353 UNIVERSITY OF CALIFORNIA - DAVIS 2355**  
 ELECTROHYDRODYNAMIC POOLING IN REDUCED GRAVITY  
 06/29/1994 - 08/30/2001 FY00: \$0 Total: \$100,000  
 Prin. Invest.: B D SHAW  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 477 UNIVERSITY OF CALIFORNIA - DAVIS 2356**  
 COMBUSTION EXPERIMENTS IN REDUCED GRAVITY WITH TWO -  
 COMPONENT MISCIBLE DROPLETS  
 05/21/1996 - 05/20/2001 FY00: \$40,834 Total: \$361,585  
 Prin. Invest.: B SHAW  
 Tech. Officer: GRC/D DIETRICH  
 CASE Category: 13 - PHYSICS

**NCC 3 668 UNIVERSITY OF CALIFORNIA - DAVIS 2357**  
 THE IMPACT OF BUOYANCY AND FLAME STRUCTURE ON SOOT, RADI-  
 ATION AND NOX EMISSIONS FROM A TURBULENT DI  
 02/12/1999 - 11/30/2002 FY00: \$70,692 Total: \$113,916  
 Prin. Invest.: I M KENNEDY  
 Tech. Officer: GRC/K R SACKSTEDER  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 683 UNIVERSITY OF CALIFORNIA - DAVIS 2358**  
 COMBUSTION OF HAN-BASED MONOPROPELLANT IN REDUCED GRAVITY  
 03/08/1999 - 01/03/2003 FY00: \$100,000 Total: \$198,000  
 Prin. Invest.: B D SHAW  
 Tech. Officer: GRC/D L DIETRICH  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 4 118 UNIVERSITY OF CALIFORNIA - DAVIS 2359**  
 IMPROVED QUANTITATIVE FEEDBACK THEORY DESIGN OF FLIGHT  
 CONTROL SYSTEMS THROUGH SCHEDULING  
 03/12/1998 - 09/30/1999 FY00: \$0 Total: \$37,833  
 Prin. Invest.: R HESS  
 Tech. Officer: DFRC/J BURKEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 4 120 UNIVERSITY OF CALIFORNIA - DAVIS 2360**  
 APPLICATION OF REMOTE INFRARED THERMOGRAPHY  
 01/27/1999 - 02/25/2001 FY00: \$24,009 Total: \$58,597  
 Prin. Invest.: C P VAN DAM  
 Tech. Officer: DFRC/D BANKS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 5 287 UNIVERSITY OF CALIFORNIA - DAVIS 2361**  
 MICROFABRICATED QUADRUPOLE FOR A MINITURIZED MASS SPECTROM-  
 ETHER  
 01/06/1998 - 11/30/1999 FY00: \$0 Total: \$30,285  
 Prin. Invest.: R SMITH  
 Tech. Officer: GSFC/D HARPOLD  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 2 52238 UNIVERSITY OF CALIFORNIA - DAVIS 2362**  
 RELATIONSHIP BETWEEN DYNAMIC BAROREFLEX RESPONSE CHARACTER-  
 ISTICS & STATIC BAROREFLEX FUNCTION IN...  
 01/26/1998 - 09/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: P MOLE  
 Prin. Invest.: NONE  
 Tech. Officer: ARC/J E GREENLEAF  
 CASE Category: 56 - MEDICL

**NGT 2 52241 UNIVERSITY OF CALIFORNIA - DAVIS 2363**  
 16TH INTERNATIONAL CONFERENCE ON NUMERICAL METHODS IN FLUID  
 DYNAMICS  
 05/15/1998 - 12/31/1999 FY00: \$0 Total: \$25,000  
 Prin. Invest.: J J CHATTOT  
 Tech. Officer: ARC/J FLORES  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NGT 5 30073 UNIVERSITY OF CALIFORNIA - DAVIS 2364**  
 CLIMATE CONTROL OF VEGETATION AND GROWTH FORM DIST WATER  
 AND ENERGY BALANCE AT LANDSCAPE SCALES  
 09/09/1997 - 08/31/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: S G USTIN-KENNEDY  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30187 UNIVERSITY OF CALIFORNIA - DAVIS 2365**  
 FORMATION, DETECTION & QUANTIFICATION OF OXIDIZED HALOGEN  
 SPECIES IN AEROSOLS FROM THE MARINE BOUND  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: C ANASTASIO  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30352 UNIVERSITY OF CALIFORNIA - DAVIS 2366**  
 ECOLOGICAL & ECONOMIC INFLUENCES ON SMALL-SCALE TROPICAL  
 RAINFOREST SUCCESSION: REMOTE SENSING  
 08/24/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: S USTIN  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50204 UNIVERSITY OF CALIFORNIA - DAVIS 2367**  
 FATNESS, FOOD INTAKE AND HYPERGRAVITY: MECHANISMS OF REGULA-  
 TION  
 07/01/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: C A FULLER  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50230 UNIVERSITY OF CALIFORNIA - DAVIS 2368**  
 UTILIZING SCIGN VELOCITY SOLUTIONS TO MODEL LITHOSPHERIC  
 PROCESSES IN THE WESTERN TRANSVERSE RANGE  
 05/24/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: L H KELLOGG, GLASCO  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50281 UNIVERSITY OF CALIFORNIA - DAVIS 2369**  
 NEW APPROACHES TO CALCULATING GRAVITATIONAL RADIATION & RADI-  
 ATION REACTION/STUDENT: JAMES R VAN MET  
 06/20/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: S CARLIP  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1906 UNIVERSITY OF CALIFORNIA - IRVINE 2370**  
 COUPLING ATMOSPHERIC CIRCULATION AND CHEMISTRY: DEVELOPING  
 CTMS FOR CLIMATE SIMULATIONS  
 02/28/1997 - 06/30/2000 FY00: \$14,022 Total: \$282,507  
 Prin. Invest.: M J PRANTHER Prin. Invest.: NONE  
 Tech. Officer: LARC/G L MADREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2104 UNIVERSITY OF CALIFORNIA - IRVINE 2371**  
 EXPERIMENTAL INVESTIGATION OF SUPERSONIC COPLANAR JETS WITHIN  
 EJECTORS  
 09/02/1998 - 07/31/2001 FY00: \$0 Total: \$103,889  
 Prin. Invest.: D PAPAMOSCHOU  
 Tech. Officer: LARC/J M SEINER, LARC/M K PONTON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2308 UNIVERSITY OF CALIFORNIA - IRVINE 2372**  
 DEVELOPMENT OF CHEMISTRY-TRANSPORT MODELS IN SUPPORT OF  
 CLIMATE STUDIES AND ASSESSMENTS  
 06/15/2000 - 03/14/2003 FY00: \$49,979 Total: \$49,979  
 Prin. Invest.: M J PRATHER  
 Tech. Officer: LARC/G L MADREA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 942 UNIVERSITY OF CALIFORNIA - IRVINE 2373**  
 NEURAL-THYROID INTERACTION ON SKELETAL ISOMYOSIA EXPRESSION  
 IN OG (ZERO GRAVITY)  
 12/22/1994 - 11/30/1999 FY00: \$0 Total: \$520,201  
 Prin. Invest.: K M BALDWIN  
 Tech. Officer: ARC/W E HINDS, ARC/C M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1831 UNIVERSITY OF CALIFORNIA - IRVINE 2374**  
 EFFECTS OF GRAVITY ON SHEARED TURBULENCE LADEN WITH BUBBLES  
 OR DROPLETS  
 05/02/1996 - 11/01/2000 FY00: \$67,000 Total: \$400,000  
 Prin. Invest.: S ELGHOBASHI, J LA SHERAS  
 Tech. Officer: GRC/S LA SHERAS  
 CASE Category: 13 - PHYSICS

**NAG 3 2024 UNIVERSITY OF CALIFORNIA - IRVINE 2375**  
 IGNITION AND FLAME SPREAD ABOVE LIQUID FUEL POOLS: GRAVITY  
 EFFECTS  
 03/01/1997 - 03/30/2002 FY00: \$96,150 Total: \$344,265  
 Prin. Invest.: W A SIRIGNANO  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2226 UNIVERSITY OF CALIFORNIA - IRVINE 2376**  
 APPLICATIONS OF ELECTRIC FIELD IN MICROGRAVITY COMBUSTION  
 02/01/1999 - 11/29/2002 FY00: \$88,000 Total: \$176,000  
 Prin. Invest.: D DUNN-RANKIN  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2345 UNIVERSITY OF CALIFORNIA - IRVINE 2377**  
 MIXING ENHANCEMENT AND NOISE REDUCTION IN HIGH-SPEED JETS  
 03/07/2000 - 01/31/2001 FY00: \$63,676 Total: \$63,676  
 Prin. Invest.: D PAPAMOSCHOU, NONE  
 Tech. Officer: GRC/K Q ZAMAN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2389 UNIVERSITY OF CALIFORNIA - IRVINE 2378**  
 SUPERFLUID CONTACT LINE DYNAMICS SUPERFLUID CONTACT LINE  
 DYNAMICS  
 04/13/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: P TABOREK  
 Tech. Officer: GRC/R WILKINSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 4 166 UNIVERSITY OF CALIFORNIA - IRVINE 2379**  
 ROBUST NONLINEAR FLIGHT CONTROL  
 02/25/1999 - 11/30/2000 FY00: \$30,000 Total: \$80,000  
 Prin. Invest.: K MEASE  
 Tech. Officer: DFRC/J CARTER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 3467 UNIVERSITY OF CALIFORNIA - IRVINE 2380**  
 STABLE ISOTOPES AND RADIOCARBON IN ATMOSPHERIC MET  
 11/05/1996 - 09/30/1999 FY00: \$0 Total: \$519,278  
 Prin. Invest.: S C TYLER  
 Tech. Officer: GSFC/J A KAYE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 3692 UNIVERSITY OF CALIFORNIA - IRVINE 2381**  
 A DATA-PARALLEL COMPUTING ENVIRONMENT (SHARK OS)  
 01/22/1997 - 09/30/1999 FY00: \$0 Total: \$93,910  
 Prin. Invest.: I SCHERSON  
 Tech. Officer: GSFC/J DORLAND  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 3767 UNIVERSITY OF CALIFORNIA - IRVINE 2382**  
 LATITUDINAL TROPOSPHERIC CONCENTRATION DISTRIBUTION HALOCAR-  
 BONS & HYDROCARBONS  
 03/15/1997 - 01/14/2000 FY00: \$0 Total: \$622,977  
 Prin. Invest.: D R BLAKE  
 Tech. Officer: GSFC/M J KURYLO  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5069 UNIVERSITY OF CALIFORNIA - IRVINE 2383**  
 HIGH ENERGY ANTIMATTER TELESCOPE - HEAT  
 07/18/1996 - 09/30/2000 FY00: \$0 Total: \$150,000  
 Prin. Invest.: S W BARWICK  
 Tech. Officer: WFF/H C NEEDLEMAN, WFF/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5149 UNIVERSITY OF CALIFORNIA - IRVINE 2384**  
 DEVELOPMENT OF EMPIRICAL MODE DECOMPOSITION METHOD &  
 HILBERT SPECTRAL ANALYSIS FOR ENGR APPLICATIONS  
 09/09/1997 - 02/28/2001 FY00: \$0 Total: \$160,924  
*Prin. Invest.:* J N YANG, Z SHEN  
*Tech. Officer:* GSFC/S R LONG, GSFC/N E HUANG  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 5 6396 UNIVERSITY OF CALIFORNIA - IRVINE 2385**  
 CHEMISTRY & CIRCULATION OCCULTATION SPECTROSCOPY MI  
 SSION(CCOSM) BACK-UP MISSION ON THE EARTH SYSTEM  
 10/07/1997 - 09/14/1999 FY00: \$0 Total: \$163,193  
*Prin. Invest.:* M J PRATHER  
*Tech. Officer:* GSFC/R J FITZGERALD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7137 UNIVERSITY OF CALIFORNIA - IRVINE 2386**  
 DEVELOPING A CHEMICAL TRANSPORT MODEL FOR ASSESSIN G GLOBAL  
 CHANGE INATMOSPHERIC COMPOSITION  
 03/24/1998 - 03/31/2001 FY00: \$57,712 Total: \$221,212  
*Prin. Invest.:* M J PRATHER  
*Tech. Officer:* GSFC/R W STEWART  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7301 UNIVERSITY OF CALIFORNIA - IRVINE 2387**  
 ASSESSING ROLE OF FIRE & SOIL DRAINAGE IN DETERMINING NET C  
 FLUXESIN BOREAL ECOSYSTEMS  
 05/27/1998 - 04/30/2001 FY00: \$64,944 Total: \$162,372  
*Prin. Invest.:* S TRUMBORE  
*Tech. Officer:* GSFC/D WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8223 UNIVERSITY OF CALIFORNIA - IRVINE 2388**  
 "TOOLS AND DIAGNOSTICS FOR THE AEAP/GMI STRATOSPHE RIC  
 ASSESSMENT"  
 02/10/1999 - 05/14/2000 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* M J PRATHER  
*Tech. Officer:* GSFC/R W STEWART  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8685 UNIVERSITY OF CALIFORNIA - IRVINE 2389**  
 PHOTOCHEMICAL APPLICATIONS OF AEROSOL CLIMATOLOGIE S  
 07/16/1999 - 07/14/2001 FY00: \$18,500 Total: \$36,986  
*Prin. Invest.:* M J PRATHER  
*Tech. Officer:* GSFC/M I MISHCHENKO  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8935 UNIVERSITY OF CALIFORNIA - IRVINE 2390**  
 CONTINUED MONITORING & TRENDS OF SELECTED TRACE GASES AT  
 REMOTE LOCATIONS BETWEEN 71 DEGREES  
 01/13/2000 - 02/28/2003 FY00: \$210,000 Total: \$210,000  
*Prin. Invest.:* D R BLAKE  
*Tech. Officer:* GSFC/M KURYLO  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9695 UNIVERSITY OF CALIFORNIA - IRVINE 2391**  
 RESOURCE MANAGEMENT IN TIGHTLY COUPLED MULTIPROCES SORS.  
 07/03/2000 - 07/14/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* I SCHERSON  
*Tech. Officer:* GSFC/J DORBAND  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9955 UNIVERSITY OF CALIFORNIA - IRVINE 2392**  
 "STABLE ISOTOPES AND RADIOCARBON IN ATMOSPHERIC HYDROCAR-  
 BONS AND THEIR SOURCES"  
 09/21/2000 - 11/30/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* S C TYLER  
*Tech. Officer:* GSFC/D STARR  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 8 1408 UNIVERSITY OF CALIFORNIA - IRVINE 2393**  
 R/S GROUND BASED PROGRAM FOR THE PHYSICAL ANALYSIS OF MACRO-  
 MOLECULAR CRYSTAL GROWTH  
 11/18/1997 - 05/31/1999 FY00: \$0 Total: \$200,298  
*Prin. Invest.:* A J MALKIN  
*Tech. Officer:* MSFC/B GUYNES  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1437 UNIVERSITY OF CALIFORNIA - IRVINE 2394**  
 RESEARCH/3HE-4HE MIXTURES AND DROPLETS STABILIZED IN CESIATED  
 CONTAINERS  
 03/23/1998 - 01/31/2003 FY00: \$56,000 Total: \$150,000  
*Prin. Invest.:* P TABOREK, J RUTLEDGE  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 12 - CHEMISTRY

**NAG 8 1569 UNIVERSITY OF CALIFORNIA - IRVINE 2395**  
 GROWTH PROCESSES AND DEFECT STRUCTURE OF MACRO- MOLEC-  
 ULAR CRYSTALS.  
 03/04/1999 - 11/30/2002 FY00: \$175,000 Total: \$274,000  
*Prin. Invest.:* A J MALKIN  
*Tech. Officer:* MSFC/B GUYNES  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1572 UNIVERSITY OF CALIFORNIA - IRVINE 2396**  
 R/S STABILIZATION AND PRESERVATION OF CRYSTALS FOR X-RAY  
 DIFFRACTION EXPERIMENTS  
 02/18/1999 - 11/30/2002 FY00: \$148,000 Total: \$258,000  
*Prin. Invest.:* F JURNAK  
*Tech. Officer:* MSFC/B GUYNES  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 8 1652 UNIVERSITY OF CALIFORNIA - IRVINE 2397**  
 RESEARCH ENTITLED: "REDUCEAD-ORDER PREDICTIVE/ TRACKING  
 ENTRY GUIDANCE"  
 12/20/1999 - 01/15/2001 FY00: \$70,000 Total: \$70,000  
*Prin. Invest.:* K D MEASE  
*Tech. Officer:* MSFC/J HANSON  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 9 1149 UNIVERSITY OF CALIFORNIA - IRVINE 2398**  
 MECHANISMS OF MICROACTIVITY EFFECT ON VASULAR FUNCTIONS  
 09/15/1999 - 09/14/2002 FY00: \$264,251 Total: \$264,251  
*Prin. Invest.:* R E PURDY  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAS 8 00017 UNIVERSITY OF CALIFORNIA - IRVINE 2399**  
 OPCGA PHASE C/D FLIGHT HARDWARE DEVELOPMENT  
 02/16/2000 - 07/31/2004 FY00: \$3,259,171 Total: \$3,259,171  
*Prin. Invest.:* A MCPHERSON  
*Tech. Officer:* MSFC/S ROBBINS  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

## NASA'S UNIVERSITY PROGRAM

## CALIFORNIA

**NAS 8 00019 UNIVERSITY OF CALIFORNIA - IRVINE 2400**  
 ENHANCED GASEOUS NITROGEN DEWAR  
 03/30/2000 - 01/19/2004 FY00: \$400,000 Total: \$400,000  
 Prin. Invest.: A MCPHERSON  
 Tech. Officer: MSFC/S ROBBINS  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAS 8 39763 UNIVERSITY OF CALIFORNIA - IRVINE 2401**  
 CRYSTAL GROWTH FLIGHT APPARATUS  
 10/30/1992 - 02/18/2000 FY00: \$975,243 Total: \$15,895,061  
 Prin. Invest.: A MCPHERSON  
 Tech. Officer: MSFC/S ROBBINS  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 1 299 UNIVERSITY OF CALIFORNIA - IRVINE 2402**  
 WHOLE AIR SAMPLING FROM THE DC-8 AND P-3B AIRCRAFT DURING  
 PEM-TROPICS-B, REF NRA-97-MTPE-13  
 06/09/1998 - 05/31/2001 FY00: \$171,269 Total: \$901,270  
 Prin. Invest.: D R BLAKE  
 Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 413 UNIVERSITY OF CALIFORNIA - IRVINE 2403**  
 WHOLE AIR SAMPLING FROM THE DC-8 AND P3-B AIRCRAFT DURING  
 TRACE-P  
 09/21/2000 - 06/30/2002 FY00: \$343,579 Total: \$343,579  
 Prin. Invest.: D R BLAKE  
 Tech. Officer: LARC/J L RAPER, SR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 1070 UNIVERSITY OF CALIFORNIA - IRVINE 2404**  
 LABORATORY MODELS OF PROTOCELLS  
 11/06/1998 - 08/31/1999 FY00: \$0 Total: \$53,000  
 Prin. Invest.: J K LANYI  
 Tech. Officer: ARC/A POHORILLE, ARC/M H NEW  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 2 5333 UNIVERSITY OF CALIFORNIA - IRVINE 2405**  
 LABORATORY MODELS OF PROTOCELLS  
 07/19/1999 - 07/31/2000 FY00: \$30,000 Total: \$60,000  
 Prin. Invest.: J K LANYI  
 Tech. Officer: ARC/A POHORILLE, ARC/M H NEW  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 2 5378 UNIVERSITY OF CALIFORNIA - IRVINE 2406**  
 OPTIMIZATION OF PERCEPTUAL TRANSPARENCY IN SYNTHETIC VISION  
 DISPLAYS  
 04/05/2000 - 03/31/2001 FY00: \$15,791 Total: \$15,791  
 Prin. Invest.: T M DZMURA  
 Tech. Officer: ARC/J MULLIGAN  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 5 280 UNIVERSITY OF CALIFORNIA - IRVINE 2407**  
 MEASURING THE EFFECTS OF LOGGING ON THE CO2 AND ENERGY  
 EXCHANGE OF A PRIMARY FOREST IN TAPAJOS N  
 06/24/1998 - 12/31/2000 FY00: \$298,600 Total: \$975,577  
 Prin. Invest.: M L GOULDEN  
 Tech. Officer: GSFC/D W DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 336 UNIVERSITY OF CALIFORNIA - IRVINE 2408**  
 CARBON DYNAMICS IN VEGETATION AND SOILS ALONG THE EASTERN LBA  
 TRANSECT  
 06/16/1998 - 12/31/2000 FY00: \$288,925 Total: \$626,021  
 Prin. Invest.: S TRUMBORE  
 Tech. Officer: GSFC/D DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 8 148 UNIVERSITY OF CALIFORNIA - IRVINE 2409**  
 ENHANCED DEWAR PROGRAM  
 12/16/1997 - 04/30/2000 FY00: \$0 Total: \$740,601  
 Prin. Invest.: A MCPHEARSON  
 Tech. Officer: MSFC/S ROBBINS, MSFC/J MAYO  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52135 UNIVERSITY OF CALIFORNIA - IRVINE 2410**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/18/1996 - 06/30/1999 FY00: -\$1 Total: \$66,000  
 Prin. Invest.: E J LAVERNA, L DEL CASTILLO  
 Tech. Officer: LARC/W D BREWER, LARC/D M ROYSTER  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT 5 30035 UNIVERSITY OF CALIFORNIA - IRVINE 2411**  
 A LABORATORY INVESTIGATION TO DETERMINE THE ROLE OF REACTIVE  
 NITROGEN BALANCE OF THE ATMOSPHERE  
 10/17/1996 - 08/31/1999 FY00: -\$3 Total: \$43,997  
 Prin. Invest.: D TOOHEY  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 30127 UNIVERSITY OF CALIFORNIA - IRVINE 2412**  
 TIMESCALES OF TERRESTRIAL ECOSYSTEM RESPONSE TO GLOBAL  
 CHANGE  
 10/10/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: M PRATHER  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30203 UNIVERSITY OF CALIFORNIA - IRVINE 2413**  
 LOW LATITUDE NONLINEAR BEHAVIOR OF ROSSBY WAVES COMPOSED OF  
 A SPECTRUM OF PHASE SPEEDS/STUDENT  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: G MAGNUSDOTTIR  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50226 UNIVERSITY OF CALIFORNIA - IRVINE 2414**  
 SIGMA D MEASUREMENT OF METHANE AND MOLECULAR HYDROGEN IN  
 THE ATMOSPHERE  
 09/29/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: R J RICE, RICE  
 Tech. Officer: HQ/A NURRIDDIN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50317 UNIVERSITY OF CALIFORNIA - IRVINE 2415**  
 SIMULATED MICROGRAVITY ALTERS VASCULAR CONTRACTILITY: ROLE  
 OF CALCIUM DEPENDENT PKC-MEDIATED NON-  
 07/11/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R E PURDY  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50325 UNIVERSITY OF CALIFORNIA - IRVINE 2416**  
 METHYL HALIDE EMISSIONS: THE ATMOSPHERIC IMPACT OF AGRICULTURE  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* R J CICERONE  
*Tech. Officer:* GSFC/M W WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 1899 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2417**  
 STRATOSPHERIC AEROSOL MICROPHYSICS AND PHYSICAL CHEMISTRY: MODELING AND OBSERVATIONS  
 04/01/1997 - 03/31/2001 FY00: \$30,980 Total: \$356,960  
*Prin. Invest.:* R P TURCO  
*Tech. Officer:* LARC/G MADDERA, LARC/M M POTEAT  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1966 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2418**  
 RADIATIVE TRANSFER AND SATELLITE REMOTE SOUNDING OF CIRRUS CLOUDS USING FIRE-II-IFO DATA  
 09/08/1997 - 05/07/2000 FY00: \$1 Total: \$205,001  
*Prin. Invest.:* K N LIU, S C OU  
*Tech. Officer:* LARC/D S MCDOUGAL  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 2009 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2419**  
 AN ANALYSIS OF THE STABLE GROWTH OF SURFACE FLAWS USING EPFEAM, EPBEAM-DP AND THE T\*INTEGRAL  
 02/17/1998 - 09/30/1999 FY00: -\$1 Total: \$90,000  
*Prin. Invest.:* S N ATLURI  
*Tech. Officer:* LARC/D S DAWICKE, LARC/I S RAJU  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2097 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2420**  
 AIRCRAFT AEROSOLS AND CONTRAILS: MICROPHYSICAL PROCESS AND EVOLUTION  
 09/10/1998 - 09/09/2001 FY00: \$60,000 Total: \$162,189  
*Prin. Invest.:* R P TURCO  
*Tech. Officer:* LARC/W L GROSE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 2274 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2421**  
 DEVELOPMENT OF MLPG AND LBIE METHODS FOR NONLINEAR PROBLEMS OF FRACTURE  
 03/01/2000 - 12/14/2000 FY00: \$65,000 Total: \$65,000  
*Prin. Invest.:* S N ATLURI  
*Tech. Officer:* LARC/I S RAJU  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 2 1192 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2422**  
 HIGH SPEED JET NOISE PREDICTION USING NUMERICAL SIMULATIONS  
 03/25/1998 - 02/29/2000 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* J B FREUND  
*Tech. Officer:* ARC/D KWAK  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 1193 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2423**  
 MECHANICAL SIGNAL TRANSDUCTION IN COUNTERMEASURES OF PHYSIOLOGICAL SCIENCE  
 03/25/1998 - 04/30/2001 FY00: \$290,244 Total: \$536,583  
*Prin. Invest.:* T J TIDBALL  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1222 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2424**  
 HYPERGRAVITY-INDUCED MODIFICATIONS IN SPATIO-TEMPORAL CODING AMONG UTICULAR PRIMARY AFFERENT NEURO  
 05/22/1998 - 12/31/2000 FY00: \$206,478 Total: \$342,481  
*Prin. Invest.:* L F HOFFMAN  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1228 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2425**  
 EXTENDED PULSE TUBE COOLER SCALING  
 06/05/1998 - 05/31/1999 FY00: \$0 Total: \$7,600  
*Prin. Invest.:* T K FREDERKING  
*Tech. Officer:* ARC/J M LEE, ARC/P KITTEL  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 2 1238 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2426**  
 SCALABLE NUMERICAL ALGORITHMS ON NON-HETEROGENEOUS COMPUTING ENVIRONMENTS WITH DYNAMIC ROUTING & LOAD  
 07/17/1998 - 06/30/2001 FY00: \$40,000 Total: \$120,000  
*Prin. Invest.:* T F CHAN  
*Tech. Officer:* ARC/T J BARTH  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1249 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2427**  
 NEXT GENERATION INTERNET BANDWIDTH & TRAFFIC MANAGEMENT  
 08/19/1998 - 02/28/2001 FY00: \$78,000 Total: \$280,418  
*Prin. Invest.:* M GERLA  
*Tech. Officer:* ARC/B H WHITAKER, ARC/B H WHITAKER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1270 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2428**  
 NEUROMUSCULAR ADAPTATIONS OF RHESUS MACAQUES TO A HYPERDYNAMIC ENVIRONMENT  
 09/18/1998 - 12/31/2000 FY00: \$5,692 Total: \$257,004  
*Prin. Invest.:* V R EDGERTON, J HODGSON, R ROY  
*Tech. Officer:* ARC/R E GRINDELAND, ARC/K L SOUZA  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1324 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2429**  
 COMPUTATION OF HIGH-SPEED JET NOISE  
 05/20/1999 - 05/14/2001 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* J B FREUND  
*Tech. Officer:* ARC/D KWAK  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 1819 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2430**  
 STUDIES IN THERMOCAPILLARY CONVECTION OF THE MARANGONI-BERNARD TYPE  
 05/06/1996 - 05/05/2001 FY00: \$26,000 Total: \$320,000  
*Prin. Invest.:* R E KELLY  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 1832 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2431**  
 INVESTIGATION OF MECHANISMS ASSOCIATED WITH NUCLEATE BOILING  
 UNDER MICROGRAVITY CONDITIONS  
 05/06/1996 - 08/30/2000 FY00: \$90,000 Total: \$764,880  
 Prin. Invest.: V K DHIR  
 Tech. Officer: GRC/D F SHAO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 1849 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2432**  
 THE MELTING OF AQUEOUS FOAMS  
 05/06/1996 - 05/31/2000 FY00: \$62,000 Total: \$640,000  
 Prin. Invest.: D J DURIAN  
 Tech. Officer: GRC/B SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 1862 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2433**  
 FINITE SIZE EFFECTS NEAR THE LIQUID-GAS CRITICAL POINT OF  $\text{H}_2\text{O}$   
 05/08/1996 - 05/22/2001 FY00: \$79,520 Total: \$308,200  
 Prin. Invest.: J RUDNICK  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 1889 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2434**  
 CONTAINERLESS RIPLE TURBULENCE  
 05/31/1996 - 05/30/2000 FY00: \$50,000 Total: \$300,000  
 Prin. Invest.: S PUTTERMAN  
 Tech. Officer: GRC/R ROGERS  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2108 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2435**  
 DIFFUSING LIGHT PHOTOGRAPHY OF CONTAINERLESS RIPLE TURBULENCE  
 03/01/1998 - 01/07/2002 FY00: \$150,000 Total: \$400,000  
 Prin. Invest.: S J PUTTERMAN  
 Tech. Officer: GRC/W M DUVAL  
 CASE Category: 13 - PHYSICS

**NAG 3 2344 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2436**  
 EVALUATION AND IMPROVEMENT OF JET NOISE MODELS AND EXPERIMENTAL TECHNIQUES USING HIGH FIDELITY SIMULATION  
 03/07/2000 - 01/31/2001 FY00: \$66,000 Total: \$66,000  
 Prin. Invest.: J B FREUND  
 Tech. Officer: GRC/J BRIDGES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2397 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2437**  
 TRANSITION FROM POOL TO FLOW BOILING - THE EFFECT OF REDUCED GRAVITY  
 04/18/2000 - 11/30/2003 FY00: \$49,989 Total: \$49,989  
 Prin. Invest.: V K DHIR  
 Tech. Officer: GRC/D F CHAO  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2467 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2438**  
 A MECHANISTIC STUDY OF NUCLEATE BOILING HEAT TRANSFER UNDER MICROGRAVITY CONDITIONS  
 06/21/2000 - 05/15/2005 FY00: \$110,000 Total: \$110,000  
 Prin. Invest.: V K DHIR  
 Tech. Officer: GRC/D F CHAO  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2481 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2439**  
 THE MELTING OF AQUEOUS FOAMS  
 08/01/2000 - 05/31/2005 FY00: \$138,000 Total: \$138,000  
 Prin. Invest.: D J DURIAN  
 Tech. Officer: GRC/F P CHARIAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 713 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2440**  
 ESTIMATION THEORY SATELLITE DATA ASSIMILATION AND ATMOSPHERIC PREDICTABILITY  
 09/15/1985 - 12/31/1999 FY00: -\$5 Total: \$1,682,994  
 Prin. Invest.: M GHIL  
 Tech. Officer: GSFC/J PFAENDTNER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 3089 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2441**  
 THREE-DIMENSIONAL MHD SIMULATIONS OF ACCRETION FLOWS IN ACTIVE GALACTIC NUCLEI  
 10/11/1995 - 10/14/1999 FY00: -\$21 Total: \$299,979  
 Prin. Invest.: F V CORONITI  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3171 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2442**  
 POLAR MAGNETIC FIELD EXPERIMENT  
 02/21/1996 - 03/31/1999 FY00: -\$1,373 Total: \$1,652,474  
 Prin. Invest.: C T RUSSELL  
 Tech. Officer: GSFC/R A HOFFMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 3235 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2443**  
 THE COUPLED MAGNETOSPHERE-IONOSPHERE: AURORAL ARCS AND SUBSTORM BREAKUP  
 05/16/1996 - 05/31/2000 FY00: \$0 Total: \$715,000  
 Prin. Invest.: F V CORONITI  
 Tech. Officer: GSFC/J J GREBOWSKY, HQ/J D BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 3252 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2444**  
 MICROWAVE ANISOTROPY PROBE FOR MIDEX  
 06/06/1996 - 06/14/1999 FY00: \$0 Total: \$84,732  
 Prin. Invest.: E S WRIGHT  
 Tech. Officer: GSFC/C L BENNETT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3309 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2445**  
 AN ISO DATA ANALYSIS BLOCK GRANT  
 07/31/1996 - 08/14/1999 FY00: \$0 Total: \$718,800  
 Prin. Invest.: E E BECKLIN  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3764 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2446**  
 SOURCE DETERMINATION FOR SUBSTORM-RELATED ION INJECTION  
 02/13/1997 - 04/14/2001 FY00: \$22,917 Total: \$165,000  
 Prin. Invest.: R J STRANGWAY, NONE  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 3863 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2447**  
 THERMAL AND DYNAMICAL PROCESSES IN THE EVOLUTION OF SATELLITES  
 02/14/1997 - 11/30/2000 FY00: \$76,000 Total: \$316,000  
*Prin. Invest.:* G SCHUBERT  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3956 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2448**  
 VENUS TECTONICS AND EVOLUTION  
 03/12/1997 - 02/14/2001 FY00: \$37,050 Total: \$144,780  
*Prin. Invest.:* W M KAULA  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3964 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2449**  
 REGULATION OF VASCULAR NEUROSECRETION BY MECHANICA IN NERVE  
 TERMINAL MEMBRANES  
 02/13/1997 - 04/30/2000 FY00: \$50,367 Total: \$259,160  
*Prin. Invest.:* A D GRINNELL  
*Tech. Officer:* GSFC/M AVERNER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 3982 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2450**  
 OBSERVATION & MODELING OF THE TRANSIENT GENERAL CIRCULAR NORTH  
 PACIFIC OCEAN  
 03/03/1997 - 05/31/2000 FY00: \$0 Total: \$226,341  
*Prin. Invest.:* J C MCWILLIAMS  
*Tech. Officer:* GSFC/B C DOUGLAS  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 5 4117 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2451**  
 DYNAMICAL STUDIES OF PLANETARY AND SATELLITE ATMOSPHERES  
 02/28/1997 - 01/31/2001 FY00: \$84,780 Total: \$304,781  
*Prin. Invest.:* P SCHUBERT  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4215 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2452**  
 PRISTINE IGNEOUS ROCKS AND THE EARLY DIFFERENTIATED MATERIALS  
 03/19/1997 - 12/14/2000 FY00: \$154,000 Total: \$609,000  
*Prin. Invest.:* D H WARREN  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 4270 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2453**  
 ELECTRON PRECIPITATION FROM THE INNER MAGNETOSPHERE TO THE  
 MIDDLE ATMOSPHERE  
 04/04/1997 - 04/30/2001 FY00: \$0 Total: \$216,557  
*Prin. Invest.:* D M THORNE  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4299 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2454**  
 SOLAR WIND RECORD IN THE LUNAR REGOLITH  
 04/15/1997 - 02/28/1999 FY00: \$0 Total: \$170,000  
*Prin. Invest.:* D F KERRIDGE  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4331 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2455**  
 COSMOCHEMICAL STUDIES: CHONDRITE COMPONENTS AND D METEORITES  
 04/16/1997 - 01/31/2001 FY00: \$149,000 Total: \$599,000  
*Prin. Invest.:* D T WASSON  
*Tech. Officer:* GSFC/D F NAVA  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 4339 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2456**  
 THE ROLE OF THIN CURRENT SHEETS IN PLASMA SHEET CO DISRUPTION  
 04/12/1997 - 02/28/2001 FY00: \$107,737 Total: \$324,270  
*Prin. Invest.:* D L PRITCHETT  
*Tech. Officer:* GSFC/J D BOHLIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 4420 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2457**  
 NUMERICAL MODELING OF THE GLOBAL ATMOSPHERE  
 05/01/1997 - 12/31/2000 FY00: \$33,000 Total: \$300,000  
*Prin. Invest.:* A ARAKAWA  
*Tech. Officer:* GSFC/M SUAREZ  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4449 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2458**  
 THE PROPERTIES AND BEHAVIOR OF MARTIAN CARBON DIOXIDE  
 06/17/1997 - 02/29/2000 FY00: \$0 Total: \$80,000  
*Prin. Invest.:* D A PAIGE  
*Tech. Officer:* GSFC/P ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4527 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2459**  
 SIMULATION OF EFFECTS OF PLANETARY WAVE OSCILLATIONS AND  
 IONOSPHERE USING A COUPLED THERMOSPHERE IONOSPHERE  
 05/06/1997 - 04/30/2000 FY00: \$0 Total: \$160,653  
*Prin. Invest.:* D PAIRISH  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4661 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2460**  
 SOME STUDIES OF FLUX ROPES IN THE EARTH'S MAGNETOSPHERE  
 06/05/1997 - 05/31/2000 FY00: \$0 Total: \$152,848  
*Prin. Invest.:* D K KHURANA  
*Tech. Officer:* GSFC/J GREBOWSKY  
*CASE Category:* 13 - PHYSICS

**NAG 5 4680 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2461**  
 AN INTEGRATED STUDY OF RING CURRENT DYNAMICS DURING  
 06/17/1997 - 05/31/2000 FY00: \$0 Total: \$176,000  
*Prin. Invest.:* D M THORNE  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 13 - PHYSICS

**NAG 5 4683 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2462**  
 STUDIES OF THE INTRINSIC COMPLEXITIES OF MAGNETOSPHERIC THEORY AND  
 OBSERVATIONS  
 06/09/1997 - 04/30/1999 FY00: \$0 Total: \$84,800  
*Prin. Invest.:* D ASHOUR-ABDALLA  
*Tech. Officer:* GSFC/J BOHLIN  
*CASE Category:* 13 - PHYSICS



**NAG 5 4688 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2463**  
TOWARD OTHER SOLAR SYSTEMS: GAS, DUST, BROWN DWARF  
06/17/1997 - 04/30/2001 FY00: \$0 Total: \$147,000  
Prin. Invest.: D M ZUCKERMAN  
Tech. Officer: GSFC/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 4704 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2464**  
ISOTOPIC INVESTIGATIONS OF NEBULAR AND PARENT-BODY SENSITIVITY  
ION MICROPROBE  
08/13/1997 - 05/31/2000 FY00: \$0 Total: \$325,700  
Prin. Invest.: D D MCKEEGAN  
Tech. Officer: HQ/J F BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 4766 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2465**  
CHONDRITIC METEORITES: NEBULAR AND PARENT-BODY FO  
06/05/1997 - 05/31/2001 FY00: \$49,000 Total: \$199,000  
Prin. Invest.: D E RUBIN  
Tech. Officer: GSFC/D NAVA  
CASE Category: 11 - ASTRONOMY

**NAG 5 4837 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2466**  
2ND YR RENEWAL "INFLAMMATORY AND MECHANICAL COMPOUND INJURY"  
06/26/1997 - 03/31/2000 FY00: \$0 Total: \$379,852  
Prin. Invest.: J TIDBALL  
Tech. Officer: GSFC/V SCHNEIDER  
CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 6082 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2467**  
ISOTOPIC AND EXPERIMENTAL CONSTRAINTS ON THE GENETIC EVOLUTION  
METEORITE ALH84001  
08/26/1997 - 07/31/1999 FY00: \$0 Total: \$69,000  
Prin. Invest.: L A LESHIN  
Tech. Officer: GSFC/J BOYCE  
CASE Category: 11 - ASTRONOMY

**NAG 5 6243 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2468**  
THE NEAR-EARTH PLASMA SHEET AND ITS RESPONSE TO THE SUN, AND  
LARGE-SCALE DISTURBANCES  
08/19/1997 - 06/30/2000 FY00: \$0 Total: \$140,000  
Prin. Invest.: P R LYONS  
Tech. Officer: GSFC/J BOHLIN  
CASE Category: 13 - PHYSICS

**NAG 5 6265 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2469**  
ASYMM. AURORAL PROCESSES  
08/21/1997 - 06/30/2001 FY00: \$0 Total: \$246,911  
Prin. Invest.: D M THORNE  
Tech. Officer: GSFC/J BERGSTRAHL  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6272 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2470**  
CONDENSATION OF THE MARTIAN ATMOSPHERE DURING POLAR DYNAMICS  
& MICROPHYSICS  
08/27/1997 - 08/31/2000 FY00: \$0 Total: \$60,400  
Prin. Invest.: D PAIGE  
Tech. Officer: GSFC/R BEEBE  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6307 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2471**  
WAVELENGTH-TUNABLE NOVEL SEMICONDUCTOR DETECTOR FOR  
ISR ASTRONOMY RESEARCH  
10/10/1997 - 06/14/1999 FY00: \$0 Total: \$56,000  
Prin. Invest.: D L WANG  
Tech. Officer: GSFC/H THRONSON  
CASE Category: 11 - ASTRONOMY

**NAG 5 6332 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2472**  
OBSERVATIONAL AND THEORETICAL STUDIES OF SOLAR STRUCTURE  
09/30/1997 - 10/31/2000 FY00: \$0 Total: \$627,807  
Prin. Invest.: D K ULRICH  
Tech. Officer: GSFC/W J WAGNER  
CASE Category: 11 - ASTRONOMY

**NAG 5 6377 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2473**  
SUBSTORM BREAK-UP AS A COUPLED MAGNETOSPHERE-IONOSPHERE  
INSTABILITY  
10/08/1997 - 08/31/2000 FY00: \$0 Total: \$126,000  
Prin. Invest.: D PELLAT  
Tech. Officer: GSFC/J BOHLIN  
CASE Category: 13 - PHYSICS

**NAG 5 6397 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2474**  
IMAGER RADIATION AND REMOTE SENSING PROGRAM IN SUPPORT OF  
BSRN  
10/29/1997 - 11/14/1999 FY00: \$0 Total: \$23,358  
Prin. Invest.: K N LIU  
Tech. Officer: GSFC/M DAH CHOU  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6407 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2475**  
AN HRI IMAGE OF A BRIGHT SEYFERT 2 GALAXY & A POSSIBLE X-RAY  
EMITTING PRE-MAIN-SEQUENCE STAR  
10/10/1997 - 10/14/1999 FY00: \$0 Total: \$10,200  
Prin. Invest.: M MALKAN  
Tech. Officer: GSFC/R PETRE  
CASE Category: 11 - ASTRONOMY

**NAG 5 6680 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2476**  
SPECTRAL DISTRIBUTION OF SOLAR IRRADIANCE VARIABILITY  
12/08/1997 - 11/30/2000 FY00: \$40,523 Total: \$124,624  
Prin. Invest.: D M PAP  
Tech. Officer: GSFC/C JACKMAN  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6689 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2477**  
THEORETICAL TECHNOLOGY RESEARCH FOR THE INTERNATIONAL  
SOLAR TERRESTRIAL PHYSICS (ISTP) PROGRAM.  
12/01/1997 - 09/30/2001 FY00: \$250,000 Total: \$1,514,500  
Prin. Invest.: M ABDALLA  
Tech. Officer: GSFC/S CURTIS  
CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NAG 5 6965 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2478**  
PICK-UP ION INSTABILITIES AT PLANETARY MAGNETOSPHERIC RESONANCES  
03/03/1998 - 03/31/2001 FY00: \$0 Total: \$96,968  
Prin. Invest.: R J STRANGEWAY  
Tech. Officer: GSFC/D EVANS  
CASE Category: 11 - ASTRONOMY

**NAG 5 6975 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2479**  
 THE ROLE OF COMPANION STARS IN PLANETARY FORMATION  
 03/25/1998 - 06/30/2001 FY00: \$35,000 Total: \$116,600  
*Prin. Invest.:* A GHEZ  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7123 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2480**  
 LIGHT SCATTERING AND REMOTE SENSING OF CIRRHUS CLOUDS USING  
 MODIS CHANNELS  
 04/16/1998 - 09/30/2000 FY00: \$21,000 Total: \$123,000  
*Prin. Invest.:* K N LIU  
*Tech. Officer:* GSFC/M D KING  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7207 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2481**  
 DEVELOPMENTAL GENES AND THE CAMBRIAN RADIATION  
 04/08/1998 - 07/31/1999 FY00: \$0 Total: \$226,000  
*Prin. Invest.:* D JACOBS  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7315 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2482**  
 CONTINUED LONG-TERM MONITORING OF NGC 3516  
 04/28/1998 - 04/30/2000 FY00: \$0 Total: \$10,375  
*Prin. Invest.:* R EDELSON  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7555 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2483**  
 REAL-TIME FORECASTING AND RAPID POST-EVENT ASSESSMENT OF  
 EROSIONAL AND DEPOSITIONAL FLOOD DAMAGE  
 06/25/1998 - 08/31/2001 FY00: \$0 Total: \$330,915  
*Prin. Invest.:* L C SMITH  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7721 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2484**  
 POLAR MAGNETIC FIELD EXPERIMENT  
 09/23/1998 - 09/30/2001 FY00: \$453,000 Total: \$997,000  
*Prin. Invest.:* C T RUSSELL  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7738 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2485**  
 RADIATIVE TRANSFER AND REMOTE SENSING IN AEROSOL AT-  
 MOSPHERE  
 10/02/1998 - 09/30/2000 FY00: \$85,000 Total: \$160,000  
*Prin. Invest.:* K LIU  
*Tech. Officer:* GSFC/M I MISHCHENKO  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7899 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2486**  
 QUASI-CONTINUOUS ROSAT MONITORING OF THE EXTREME N ARROW-  
 LINE SEYFERT 1 GALAXY IRAS 13224-3809 ADP 9  
 01/03/1999 - 12/31/2000 FY00: \$0 Total: \$38,000  
*Prin. Invest.:* R A EDELSON  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7907 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2487**  
 STUDY OF TOTAL SOLAR AND SPECTRAL IRRADIANCE VARIATIONS  
 BASED ON THE SOHO/VIRGO AND MDI MEASUREMENTS  
 12/04/1998 - 11/30/2000 FY00: \$110,241 Total: \$205,228  
*Prin. Invest.:* J M PAP  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7924 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2488**  
 EVOLUTION OF DUST AROUND MAIN SEQUENCE STARS (LTSA - 98)  
 01/06/1999 - 12/14/2000 FY00: \$67,231 Total: \$132,236  
*Prin. Invest.:* M A JURA  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7959 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2489**  
 THE GALILEAN MOONS OF JUPITER: INFERRING INTERNAL PROPERTIES  
 OF NEW WORLDS FROM THEIR INTERACTIONS  
 01/08/1999 - 11/30/2000 FY00: \$87,464 Total: \$178,006  
*Prin. Invest.:* D G KIVELSON  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7962 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2490**  
 DYNAMICS OF THE R=10-30 RE MAGNETOTAIL DURING GEOMAGNETIC  
 DISTURBANCES  
 12/23/1998 - 12/14/2000 FY00: \$82,000 Total: \$163,000  
*Prin. Invest.:* L R LYONS  
*Tech. Officer:* GSFC/L ZANETTI  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7995 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2491**  
 CALIBRATION AND COMPARISON BETWEEN MDI, GOLF, AND MT. WILSON  
 DATA 11  
 01/05/1999 - 12/31/2000 FY00: \$250,000 Total: \$496,562  
*Prin. Invest.:* R K ULRICH  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8050 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2492**  
 SOME STUDIES OF STRUCTURE AND DYNAMICS OF JUPITER'S MAGNETO-  
 SPHERE  
 01/15/1999 - 11/30/2000 FY00: \$46,496 Total: \$123,696  
*Prin. Invest.:* D K KHURANA  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8055 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2493**  
 A GLOBAL MAGNETOHYDRODYNAMIC MODEL OF THE JOVIAN MAGNETO-  
 SPHERE  
 01/15/1999 - 01/31/2001 FY00: \$30,000 Total: \$60,000  
*Prin. Invest.:* R J WALKER  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8059 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2494**  
 MULTIPLE SCALE STRUCTURE OF AURORAL ARCS  
 01/14/1999 - 01/31/2001 FY00: \$66,700 Total: \$134,950  
*Prin. Invest.:* F V CORONITI  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 8060 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2495**  
 THE PHYSICAL NATURE OF THE ELECTRON CYCLOTRON MASE R  
 INSTABILITY IN THE AKR SOURCE REGION  
 01/14/1999 - 01/31/2001 FY00: \$56,900 Total: \$115,732  
*Prin. Invest.:* P L PRITCHETT  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8064 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2496**  
 JOVIAN SUBSTORMS: A STUDY OF PROCESSES LEADING TO TRANSIENT  
 BEHAVIOR IN THE JOVIAN MAGNETOSPHERE  
 01/11/1999 - 12/31/2000 FY00: \$50,000 Total: \$100,000  
*Prin. Invest.:* C T RUSSELL  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8065 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2497**  
 NON-ADIABATIC PLASMA PROCESSES IN THE JOVIAN MAGNETOSPHERE  
 AND COUPLING TO THE ATMOSPHERE  
 01/11/1999 - 06/30/2001 FY00: \$55,000 Total: \$105,000  
*Prin. Invest.:* D M THORNE  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8066 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2498**  
 ANALYSIS AND INTERPRETATION OF JOVIAN ATMOSPHERE AND  
 SATELLITE DATA FROM THE GALILEO MISSION  
 01/12/1999 - 12/31/2000 FY00: \$55,000 Total: \$105,000  
*Prin. Invest.:* D SCHUBERT  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8074 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2499**  
 THEORETICAL TECHNOLOGY RESEARCH FOR ISTP/SOLARMAX  
 01/14/1999 - 01/14/2000 FY00: \$0 Total: \$70,000  
*Prin. Invest.:* M ASHOUR-ABDALLA  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS

**NAG 5 8085 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2500**  
 ELECTRON DYNAMICS IN THE MAGNETOTAIL  
 01/21/1999 - 12/31/2000 FY00: \$73,728 Total: \$150,085  
*Prin. Invest.:* D SCHRIVER  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8132 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2501**  
 RESEARCH: "SUBSTORM EXPANSION PHASE DYNAMICS", 1-YEAR  
 FUNDING TO SUPPORT COMPLETION OF PI'S STUDY  
 02/04/1999 - 05/31/2001 FY00: \$0 Total: \$108,000  
*Prin. Invest.:* F CORONITE  
*Tech. Officer:* GSFC/J GREBOWSKY  
*CASE Category:* 13 - PHYSICS

**NAG 5 8288 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2502**  
 NEXT GENERATION SPACE TELESCOPE (NGST) ADVANCED SCIENCE  
 WORKING GROUP (ASWG) ACTIVITY  
 02/24/1999 - 02/29/2000 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* M RICH  
*Tech. Officer:* GSFC/E SMITH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8335 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2503**  
 EVOLUTION OF DUST AROUND YOUNG MAIN SEQUENCE STARS  
 02/24/1999 - 02/28/2001 FY00: \$21,200 Total: \$42,400  
*Prin. Invest.:* D JURA  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8439 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2504**  
 SUPPORT FOR THE 1999 PRECAMBRIAN PALEOBIOLOGICAL WORKSHOP  
 "BRIDGING TWO WORLDS: FROM THE ARCHEAN TO  
 04/01/1999 - 03/31/2000 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* J SCHOPF  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8470 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2505**  
 BIOMARKERS FOR MARS EXPLORATION  
 05/06/1999 - 07/31/2001 FY00: \$0 Total: \$84,287  
*Prin. Invest.:* D F KERRIDGE  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 8507 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2506**  
 STUDY OF THE TERRESTRIAL EFFECTS OF SOLAR IRRADIANCE VARI-  
 ATIONS FROM EUV TO INFRARED: A NEW APPROACH  
 05/10/1999 - 04/30/2001 FY00: \$50,055 Total: \$79,282  
*Prin. Invest.:* J M PAP  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8530 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2507**  
 MINING LUNAR PROSPECTOR'S GRAVITY DATA FOR INSIGHTS INTO THE  
 MECHANICAL AND THERMAL EVOLUTION OF THE  
 06/15/1999 - 06/30/2001 FY00: \$36,000 Total: \$61,000  
*Prin. Invest.:* G SCHUBERT  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8540 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2508**  
 PRIOR GRANT NAG5-3252 CONTINUATION OF MAP SCIENCE SUPPORT  
 ACTIVITIES BEING IMPLEMENTED BY THE MAP  
 08/19/1999 - 08/14/2001 FY00: \$69,561 Total: \$119,561  
*Prin. Invest.:* E L WRIGHT, NONE  
*Tech. Officer:* GSFC/C BENNET  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8693 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2509**  
 BLACK HOLES IN EARLY TYPE GALAXIES: INCIDENCE, FORMATION AND  
 EVOLUTION (LTSA 98)  
 09/08/1999 - 08/31/2000 FY00: \$0 Total: \$109,333  
*Prin. Invest.:* L FERRARESE  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8694 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2510**  
 DECENTRALIZED ESTIMATION & CONTROL OF DISTRIBUTED SPACECRAFT  
 07/29/1999 - 07/31/2001 FY00: \$127,891 Total: \$253,525  
*Prin. Invest.:* J SPEYER  
*Tech. Officer:* GSFC/J CARPENTER  
*CASE Category:* 41 - AERONAUTICAL ENGINEERING

**NAG 5 8812 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2511**  
 HIGH RESOLUTION SOLAR TRANSMISSION MEASUREMENTS FOR THE  
 DETECTION OF AEROSOLS AND CLOUDS  
 09/15/1999 - 09/30/2001 FY00: \$87,917 Total: \$198,326  
*Prin. Invest.:* A ELDERING  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8879 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2512**  
 PRECISE RELATIVE STATE ESTIMATION & CONTROL OF DISTRIBUTED  
 SATELLITE NETWORKS  
 11/15/1999 - 11/14/2000 FY00: \$181,800 Total: \$181,800  
*Prin. Invest.:* J L SPEYER  
*Tech. Officer:* GSFC/R CARPENTER  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 5 8938 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2513**  
 MAGNETIC FLUCTUATIONS IN THE JOVIAN MAGNETOSPHERE  
 01/13/2000 - 01/14/2001 FY00: \$67,300 Total: \$67,300  
*Prin. Invest.:* C T RUSSELL  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9014 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2514**  
 INTERACTION OF LAND SURFACE COVER/CHARACTERISTICS & SURFACE  
 HYDROCLIMATOLOGY AT SEASONAL/INTERANNUAL  
 02/03/2000 - 07/31/2001 FY00: \$229,127 Total: \$229,127  
*Prin. Invest.:* Y XUE  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9023 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2515**  
 DETERMINING THE LONG TERM VARIABILITY AND CHARACTERISTIC TIME  
 SCALES OF AGN - ADP 99  
 02/22/2000 - 02/28/2001 FY00: \$56,000 Total: \$56,000  
*Prin. Invest.:* R A EDELSON  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9027 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2516**  
 GLOBAL SURFACE GEOCHEMISTRY & THE DIFFERENTIATION, BULK  
 COMPOSITION, & ORIGIN OF THE MOON  
 02/04/2000 - 02/14/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* P H WARREN  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9071 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2517**  
 CONSEQUENCES OF HIGH-LATITUDE RECONNECTION  
 02/15/2000 - 02/14/2003 FY00: \$73,000 Total: \$73,000  
*Prin. Invest.:* J P BERCHEM  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 13 - PHYSICS

**NAG 5 9074 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2518**  
 PARTICLE TRANSPORT IN THE IO TORUS AND NEAR THE MOONS IO AND  
 EUROPA  
 02/15/2000 - 03/31/2001 FY00: \$45,000 Total: \$45,000  
*Prin. Invest.:* R THORNE  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9111 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2519**  
 MHD TURBULENCE SIMULATION OF THE DYNAMICS OF THE MAGNETOTAIL  
 02/23/2000 - 02/28/2001 FY00: \$41,500 Total: \$41,500  
*Prin. Invest.:* C WU  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9207 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2520**  
 ANALYSIS AND VALIDATION OF THE UARS/ACRIM II DATA  
 03/10/2000 - 03/14/2001 FY00: \$24,740 Total: \$24,740  
*Prin. Invest.:* J PAP  
*Tech. Officer:* GSFC/R CAHALAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9255 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2521**  
 THE INTERPLANETARY MAGNETIC FIELD AND THE MAGNETOSPHERIC  
 CURRENT SYSTEMS  
 03/15/2000 - 02/28/2001 FY00: \$71,000 Total: \$71,000  
*Prin. Invest.:* M EL-ALAOUI  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9294 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2522**  
 SEQUENTIAL ESTIMATION & PREDICTABILITY STUDIES FOR THE  
 ATMOSPHERE & OCEANS  
 04/10/2000 - 04/14/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* M GHIL  
*Tech. Officer:* GSFC/S COHN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9299 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2523**  
 NEW GRANT EXTEND SOLAR MAX: INVESTIGATION OF HIGH LATITUDE  
 PHENOMENA USING POLAR DATA  
 05/04/2000 - 05/14/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* C RUSSEL  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9358 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2524**  
 SENSITIVITY OF PRECIPITATION IN COUPLED LAND-ATMOSPHERE  
 MODELS  
 04/06/2000 - 06/30/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* D J NEELIN  
*Tech. Officer:* GSFC/K BERGMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9431 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2525**  
 TO CONSTRUCT A MODEL STELLAR POPULATION SCALED TO THE  
 SURFACE BRIGHTNESS OF DISK, HALO, AND BULGE FIE  
 04/14/2000 - 04/14/2001 FY00: \$10,000 Total: \$10,000  
*Prin. Invest.:* D RICH  
*Tech. Officer:* GSFC/E P SMITH  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 5 9441 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2526**  
 THE METEORITIC COMPONENT IN IMPACT DEPOSITS  
 04/13/2000 - 04/14/2001 FY00: \$55,000 Total: \$55,000  
*Prin. Invest.:* F T KYTE  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9546 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2527**  
 DEVELOPMENT OF GLOBAL MAGNETOSPHERIC FIELD MODELS OF JUPITER  
 05/15/2000 - 05/14/2001 FY00: \$76,100 Total: \$76,100  
 Prin. Invest.: K K KHURANA  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 13 - PHYSICS

**NAG 5 9573 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2528**  
 TOWARD OTHER PLANETARY SYSTEMS: IMAGING OF MASSIVE PLANETS AND DUSTY DEBRISDISKS  
 05/08/2000 - 04/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: B ZUCKERMAN  
 Tech. Officer: HQ/J M BOYCE  
 CASE Category: 13 - PHYSICS

**NAG 5 9667 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2529**  
 REMOTE SENSING OF THE OPTICAL & MICROPHYSICAL PROPERTIES OF CIRRUS CLOUDS USING MODIS CHANNELS  
 05/30/2000 - 08/31/2001 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: K N LIU  
 Tech. Officer: GSFC/M KING  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9693 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2530**  
 NEW ISTP SOLAR MAX: INTERACTIVE LEARNING DURING SOLAR MAX  
 06/27/2000 - 06/30/2001 FY00: \$50,313 Total: \$50,313  
 Prin. Invest.: M ASHOUR-ABDALLA  
 Tech. Officer: GSFC/S CURTIS  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9713 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2531**  
 INFLUENCE OF LAND SURFACE PROCESSES/LAND COVER CHANGES IN AMAZON ON REGIONAL HYDROMETEOROLOGY  
 07/06/2000 - 03/14/2001 FY00: \$142,184 Total: \$142,184  
 Prin. Invest.: Y XUE  
 Tech. Officer: GSFC/P R HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9772 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2532**  
 SOLAR MAX EXTENDED SCIENCE PROGRAM  
 06/30/2000 - 06/30/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: M ASHOUR-ABDOLLA  
 Tech. Officer: GSFC/S CURTIS  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9789 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2533**  
 ISOTOPIC INVESTIGATIONS OF NEBULAR AND PARENT BODY PROCESSES WITH HIGH SENSITIVITY ION MICROPROBE  
 07/11/2000 - 07/14/2001 FY00: \$109,000 Total: \$109,000  
 Prin. Invest.: K D MCKEEGAN  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9826 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2534**  
 THE LOCAL DISTANCE SCALE: APPLICATION OF THE TIP OF THE RED GIANT BRANCH DISTANCE INDICATOR - LTSA  
 08/23/2000 - 08/31/2001 FY00: \$78,700 Total: \$78,700  
 Prin. Invest.: S SAKAI  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9860 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2535**  
 OCEAN CARBON FLUX: TRANSPORT, & BURIAL WITHIN THE WESTERN & EASTERN U.S. COASTAL ZONES  
 08/07/2000 - 06/30/2001 FY00: \$82,000 Total: \$82,000  
 Prin. Invest.: J MCWILLIAMS  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 10032 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2536**  
 AN XMM LONG-LOOK AT NGC5548  
 09/26/2000 - 09/30/2001 FY00: \$30,500 Total: \$30,500  
 Prin. Invest.: R EDELSON  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1236 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2537**  
 OSTWALD RIPENING OF LIQUID & SOLID DROPLETS IN LIQUID METAL MATRICES  
 05/17/1996 - 05/31/2000 FY00: \$0 Total: \$200,000  
 Prin. Invest.: A J ARDELL  
 Tech. Officer: MSFC/C R TALLEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 9 814 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2538**  
 USE OF MICROGRAVITY  
 08/01/1995 - 09/09/2000 FY00: \$0 Total: \$870,000  
 Prin. Invest.: E DIRKSEN  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 970 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2539**  
 MOTOMIR RESISTIVE EXERCISE EQUIPMENT  
 11/18/1997 - 09/14/1999 FY00: \$0 Total: \$62,000  
 Prin. Invest.: R EDGERTON  
 Tech. Officer: JSC/M C GRENISEN  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1020 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2540**  
 GENESIS DISCOVERY MISSION  
 07/16/1998 - 03/04/2002 FY00: \$69,200 Total: \$172,600  
 Prin. Invest.: K D MCKEEGAN  
 Tech. Officer: JSC/E K STANSBERRY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 9 1252 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2541**  
 OPTICAL BIOSENSORS FOR IN FLIGHT MEASUREMENT OF HORMONES LEVELS  
 08/15/2000 - 07/31/2003 FY00: \$14,624 Total: \$14,624  
 Prin. Invest.: B  
 Tech. Officer: JSC/C W LLOYD  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 4 00051 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2542**  
 FORMATION FLIGHT TECHNOLOGY  
 09/18/2000 - 09/30/2003 FY00: \$35,000 Total: \$35,000  
 Prin. Invest.: J L SPEYER  
 Tech. Officer: DFRC/G L SPEYER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 804 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2543**  
 "PSYCHOPHYSIOLOGY OF HUMANS IN SPACE"  
 06/03/1993 - 05/31/1999 FY00: \$0 Total: \$973,360  
*Prin. Invest.:* P S COWINGS  
*Tech. Officer:* ARC/J P CONNLY  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 2 1050 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2544**  
 ASTROBIOLOGY @ UCLA AN INTEGRATED MULTIDISCIPLINARY APPROACH  
 TO RESEARCH & EDUCATION  
 08/19/1998 - 06/30/2003 FY00: \$941,081 Total: \$1,488,348  
*Prin. Invest.:* B RUNNEGAR  
*Tech. Officer:* ARC/R A GRAYMES, ARC/W W DOLCI  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 3 690 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2545**  
 ACOUSTICALLY FORCED CONDENSED PHASE FUEL COMBUSTION UNDER  
 MICROGRAVITY CONDITIONS  
 03/22/1999 - 12/29/2001 FY00: \$121,807 Total: \$213,162  
*Prin. Invest.:* D I SMITH  
*Tech. Officer:* GRC/K SACKSTEDER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 4 121 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2546**  
 FLIGHT SYSTEMS RESEARCH CENTER  
 02/17/1999 - 10/31/2000 FY00: \$1,525,530 Total: \$2,490,530  
*Prin. Invest.:* A V BALAKRISHNAN  
*Tech. Officer:* SSC/K W IIIFF, SSC/R R MEYER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 5 149 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2547**  
 GRAND CHALLENGE RESEARCH  
 08/09/1996 - 06/30/2000 FY00: \$0 Total: \$2,000,000  
*Prin. Invest.:* C MECHOSO  
*Tech. Officer:* GSFC/J R FISCHER  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NCC 5 301 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2548**  
 EARTH PARTNERS' PRIVATE NETWORK  
 04/03/1998 - 02/28/2001 FY00: \$854,200 Total: \$2,282,400  
*Prin. Invest.:* R MUNTZ  
*Tech. Officer:* GSFC/M MAIDEN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 385 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2549**  
 REMOTE SENSING OF CIRRUS CLOUDS AND RADIATION EFFECTS IN THE  
 EVOLUTION OF CIRRUS CLOUDS  
 04/01/1999 - 04/14/2001 FY00: \$25,000 Total: \$75,000  
*Prin. Invest.:* K N LIU  
*Tech. Officer:* GSFC/W LAU  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 1 52240 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2550**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/10/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  
*Prin. Invest.:* G P CARMEN  
*Tech. Officer:* LARC/R G BRYANT, LARC/J S HARRISON  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NGT 2 52265 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2551**  
 EFFECT OF SIMULATED MICROGRAVITY ON NT-3 EXPRESSION IN  
 PROPRIOCEPTIVE AFFERENT NEURONS IN RATS  
 07/14/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* V R EDGERTON, A J BIGBEE  
*Tech. Officer:* ARC/R E GRINDELAND, ARC/E M HOLTON  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 4 52406 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2552**  
 GSRP AUTOMATED INTERFACING IN MULTIDISCIPLINARY AEROSPACE  
 06/18/1998 - 07/31/1999 FY00: -\$3,000 Total: \$19,000  
*Prin. Invest.:* S N ATLURI  
*Tech. Officer:* SSC/K GUPTA, SSC/L S VOELKER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 5 112 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2553**  
 DECENTRALIZED CONTROL OF DISTRIBUTED SATELLITE NETWORKS,  
 GSRP TRAINING GRANT. STUDENT: GENE BELAN  
 08/18/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* J L SPEYER  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 5 30133 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2554**  
 REMOTE SENSING OF CIRRUS CLOUDS USING MODIS AIRBORNE  
 SIMULATOR (MAS) CHANNELS  
 06/24/1998 - 08/31/2000 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* K LIU  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30215 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2555**  
 INVESTIGATION OF AEROSOL/CLOUD INTERACTIONS USING A COUPLED  
 HIGH-RESOLUTION DYNAMICS/MICROPHYSICS  
 08/24/1999 - 08/31/2000 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* R P TURCO  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30338 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2556**  
 ESTIMATION OF THE TERRESTRIAL CARBON POOL & HYDROLOGIC SENSITIVITY  
 OF THE WEST SIBERIAN LOWLAND/STU  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* L SMITH  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50187 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2557**  
 A SEARCH FOR GIANT PLANETS ORBITING NEARBY STARS  
 05/27/1998 - 06/30/2001 FY00: \$22,000 Total: \$65,625  
*Prin. Invest.:* B ZUCKERMAN  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 11 - ASTRONOMY

**NGT 5 50202 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2558**  
 NEUROMUSCULAR AND ENDOCRINE FACTORS IN WEIGHTLESSNESS-  
 INDUCED ATROPHY/  
 07/02/1998 - 07/31/2001 FY00: \$19,333 Total: \$63,333  
*Prin. Invest.:* V EDGERTON  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50220 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2559**  
 HEALTH MGMT SYSTEM DESIGN & INTELLIGENT CONTROL OF FUTURE  
 MINIATUREAUTONOMOUS SPACECRAFTS UTIL  
 09/23/1998 - 09/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: P WANG, ESHAGHI  
 Tech. Officer: HQ/S MCGEE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50310 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2560**  
 PROXIMO-DISTAL PATTERNING IN MOLLUSCS AND ANNELIDS: IMPLICA-  
 TIONS FOR LIMB EVOLUTION-STUDENT: SHANNON  
 07/07/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D K JACOBS  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50332 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2561**  
 A STUDY OF UNRESOLVED ISSUES REGARDING STRATOSPHERIC  
 AEROSOL FORMATION, EVOLUTION & COMPOSITION BY  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R TURCO  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 8 52844 UNIVERSITY OF CALIFORNIA - LOS ANGELES 2562**  
 GRADUATE STUDENT RESEARCH PROGRAM FELLOWSHIP  
 08/22/1997 - 08/14/2000 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: M A ABDOU  
 Tech. Officer: MSFC/J DOWDY  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 5 5116 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2563**  
 THE TIGRE INSTRUMENT FOR INTERMEDIATE - ENERGY GAMMA-RAY  
 ASTRONOMY FROM 0.3 TO 100MEV  
 04/09/1997 - 12/31/2000 FY00: \$0 Total: \$1,049,018  
 Prin. Invest.: A D ZYCH  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5118 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2564**  
 AN ARCSECOND RESOLUTION: AXGAM  
 04/09/1997 - 12/31/2000 FY00: \$0 Total: \$600,000  
 Prin. Invest.: O T TUMER  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5211 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2565**  
 ULDB COMPTON TELESCOPE MISSION ULDB COMPTON TELESCOPE  
 MISSION  
 09/17/1998 - 12/31/2001 FY00: \$34,761 Total: \$70,067  
 Prin. Invest.: A D ZYCHE  
 Tech. Officer: WFF/A B MERRITT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5288 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2566**  
 A HIGH RESOLUTION ALL-SKY X-RAY & GAMMA-RAY MONITOR (AXGAM)  
 05/31/2000 - 05/18/2001 FY00: \$140,000 Total: \$140,000  
 Prin. Invest.: T O TUMER  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 7983 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2567**  
 OSSE OBSERVATIONS AND MAPPING OF 511 KEV EMISSION FROM THE  
 GALACTICCENTER REGION  
 01/15/1999 - 01/14/2000 FY00: \$0 Total: \$5,000  
 Prin. Invest.: D D DIXON  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8026 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2568**  
 IMPROVED ANALYSIS OF THE DISTRIBUTION OF GALACTIC AL26  
 01/12/1999 - 01/14/2000 FY00: \$0 Total: \$10,000  
 Prin. Invest.: D D DIXON  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8682 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2569**  
 SPACE-TIME DYNAMICS OF SOIL MOISTURE & TEMPERATURE -SCALE  
 ISSUES  
 07/15/1999 - 07/14/2001 FY00: \$86,513 Total: \$177,847  
 Prin. Invest.: B P MOHANTY  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9812 UNIVERSITY OF CALIFORNIA - RIVERSIDE 2570**  
 NON-ENZYMATIC OLIGOMERIZATION OF MONONUCLEOTIDES USING NON-  
 STANDARD OLIGONUCLEOTIDE TEMPLATES  
 07/19/2000 - 07/14/2001 FY00: \$65,940 Total: \$65,940  
 Prin. Invest.: C Y SWITZER  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 1 1259 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2571**  
 A STUDY OF CLOUD RADIATIVE FORCING AND FEEDBACK - FDP  
 04/19/1991 - 03/31/2000 FY00: -\$1 Total: \$1,318,577  
 Prin. Invest.: V RAMANATHAN  
 Tech. Officer: LARC/B A WIELICKI, LARC/J W YOUNGBLOOD  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 1 2044 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2572**  
 RADIATIVE CHARACTERISTICS OF THE SURFACE & CLOUDS IN THE ARCTIC  
 USING RESEARCH AIRCRAFT--NRA-94-MTPE-04  
 04/03/1998 - 03/31/2001 FY00: \$95,387 Total: \$358,823  
 Prin. Invest.: F P VALERO, S K POPE, P J FLATAU  
 Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1313 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2573**  
 THE DEVELOPMENT OF PILOT EXPERTISE IN THE AIRBUS A 320 AIRCRAFT  
 04/01/1999 - 11/30/2000 FY00: \$82,494 Total: \$175,846  
 Prin. Invest.: E L HUTCHINS  
 Tech. Officer: ARC/S M CASNER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1376 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2574**  
 EVOLUTION OF NEURAL CREST & PLACODES: AMPHIOXUS A S A MODEL  
 FOR THE ANCESTROOF THE VERTEBRATES  
 08/17/1999 - 03/28/2001 FY00: \$76,100 Total: \$113,404  
 Prin. Invest.: L Z HOLLAND  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1888 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2575**  
 MATERIAL INSTABILITIES IN PARTICULATE SYSTEMS: UC SD 95-647R  
 05/31/1996 - 06/30/2000 FY00: \$77,000 Total: \$320,000  
 Prin. Invest.: J D GODDARD  
 Tech. Officer: GRC/M E HILL  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2117 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2576**  
 DYNAMICS OF ACCELERATED INTERFACES: PARAMETRIC EXCITATION  
 AND FLUID SLOSHING IN CLOSED CONTAINERS A  
 01/28/1998 - 12/18/2000 FY00: \$82,000 Total: \$213,000  
 Prin. Invest.: C POZRIKIDIS  
 Tech. Officer: GRC/J R SKARDA  
 CASE Category: 13 - PHYSICS

**NAG 3 2465 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2577**  
 VIBRATORY DYNAMICS AND TRANSPORT OF GRANULAR MEDIA AT  
 VARIOUS G LEVELS  
 06/19/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: J D GODDARD  
 Tech. Officer: GRC/M E HILL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 1858 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2578**  
 GUARANTEED TIME OBSERVATIONS OF THE HIGH RESOLUTION SPECTROGRAPH OF THE HUBBLE SPACE TELESCOPE  
 01/03/1992 - 11/14/1998 FY00: -\$20 Total: \$827,620  
 Prin. Invest.: E BEAVER  
 Tech. Officer: GSFC/A SMITH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2967 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2579**  
 MAIN GEOMAGNETIC FIELD MODELS FROM ORSTED AND MAGSAT DATA  
 VIA A RIGOROUS GENERAL INVERSE THEORY  
 06/13/1995 - 12/31/1998 FY00: \$1 Total: \$120,909  
 Prin. Invest.: G E BACKUS  
 Tech. Officer: GSFC/P T TAYLOR  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 2968 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2580**  
 CORE AND CRUSTAL GEOMAGNETIC FIELD MONITORING USING ORSTED  
 AND MAGSAT DATA  
 06/13/1995 - 06/30/1999 FY00: \$0 Total: \$170,000  
 Prin. Invest.: C CONSTABLE  
 Tech. Officer: GSFC/P TAYLOR  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3234 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2581**  
 CHEMICAL ABUNDANCES AND EVOLUTION IN QUASARS AND ACTIVE  
 GALACTIC NUCLEI  
 05/15/1996 - 05/14/1999 FY00: \$0 Total: \$245,000  
 Prin. Invest.: F W HAMANN  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3237 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2582**  
 COSMOLOGICAL CENSUS OF BARYON DENSITY, IONIZATION AND ABUNDANCES  
 05/21/1996 - 05/31/2000 FY00: \$0 Total: \$320,000  
 Prin. Invest.: D R TYTLER  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3274 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2583**  
 HARD X-RAY CONTINUUM OF CYGNUS A AND IC5063: A TEST OF THE  
 OBSCURATION/REFLECTION HYPOTHESIS FOR ...  
 07/02/1996 - 12/31/1999 FY00: -\$3 Total: \$39,829  
 Prin. Invest.: P BLANCO  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3398 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2584**  
 A STUDY OF FOUR DISTANT, EXTREMELY X-RAY LUMINOUS GALAXY CLUSTERS  
 09/09/1996 - 03/14/1999 FY00: \$0 Total: \$16,069  
 Prin. Invest.: W TUCKER  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3528 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2585**  
 ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS ON CYCLE  
 CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND  
 11/18/1996 - 07/31/2000 FY00: \$60,000 Total: \$609,000  
 Prin. Invest.: D D KEELING  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3742 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2586**  
 PULMONARY DEPOSITION OF AEROSOLS IN MICROGRAVITY  
 03/17/1997 - 02/14/2000 FY00: \$0 Total: \$234,936  
 Prin. Invest.: K PRISK  
 Tech. Officer: GSFC/F M SULZMAN  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 3810 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2587**  
 ACCRETION PHYSICS IN THE NEW ASYNCHRONOUS AMHERST  
 01/14/1997 - 07/14/1999 FY00: -\$178 Total: \$4,464  
 Prin. Invest.: R ROTHCHILD  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3944 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2588**  
 DEVELOPMENT OF A PIXON-BASED IMAGE RECONSTRUCTION USER  
 COMMUNITY  
 03/04/1997 - 02/29/2000 FY00: \$0 Total: \$335,000  
 Prin. Invest.: D C PUETTER  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 4023 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2589**  
 ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAGE)  
 03/25/1997 - 01/31/2001 FY00: \$464,723 Total: \$1,850,484  
 Prin. Invest.: R F WEISS  
 Tech. Officer: GSFC/M J KURYLO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4145 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2590**  
 ISOTOPIC, CHEMICAL AND MINERALOGICAL INVESTIGATION MATERIALS  
 03/25/1997 - 11/30/1999 FY00: \$0 Total: \$620,118  
 Prin. Invest.: R LUGMAIR  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 12 - CHEMISTRY



**NAG 5 4284 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2591**  
 THE ORION PHENOMENON: PARTICLE FLUENCES IN THE SO  
 04/01/1997 - 02/29/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: D MARTI  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4410 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2592**  
 MONITORING OBSERVATIONS OF BLACK HOLE CANDIDATES 1 GRS  
 1758-258  
 05/21/1997 - 05/14/1999 FY00: \$0 Total: \$9,583  
 Prin. Invest.: W HEINDL  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4468 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2593**  
 INTERACTION OF THE SOLAR WIND WITH PLANETARY BOW S OF  
 NONLINEAR STRUCTURES  
 06/02/1997 - 05/31/2000 FY00: \$0 Total: \$175,000  
 Prin. Invest.: D I SHEVCHENKO  
 Tech. Officer: GSFC/J D BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 4543 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2594**  
 FRAGMENTARY SOLAR SYSTEM HISTORY  
 05/05/1997 - 12/31/1999 FY00: \$0 Total: \$260,224  
 Prin. Invest.: D MARTI  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4546 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2595**  
 NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING I THE CHEM-  
 ISTRY OF EARLY SELF-REPLICATING SYSTEMS  
 05/06/1997 - 03/31/2001 FY00: \$1,289,833 Total: \$3,766,000  
 Prin. Invest.: P L BADA  
 Tech. Officer: HQ/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4563 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2596**  
 PREBIOTIC EVOLUTION OF NITROGEN COMPOUNDS  
 05/29/1997 - 12/31/1999 FY00: \$0 Total: \$290,000  
 Prin. Invest.: D ARRHENIUS  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4571 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2597**  
 ANTARCTIC SPACE ANALOG PROGRAM  
 06/23/1997 - 12/31/1999 FY00: \$0 Total: \$96,313  
 Prin. Invest.: L A PALINKAS  
 Tech. Officer: GSFC/M SHEPANEK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4574 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2598**  
 METEORITIC SULFUR ISOTOPIC ANALYSIS  
 07/07/1997 - 02/28/2001 FY00: \$35,000 Total: \$137,000  
 Prin. Invest.: D H THIEMENS  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4621 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2599**  
 SPECTRAL AND DYNAMICAL SIGNATURES OF BLACK HOLE HI  
 05/21/1997 - 05/31/1999 FY00: \$0 Total: \$7,052  
 Prin. Invest.: W HEINDL  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4622 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2600**  
 XTE OBSERVATION OF THE TYCHO SUPERNOVA REMNANT  
 05/21/1997 - 05/31/1999 FY00: -\$9 Total: \$5,835  
 Prin. Invest.: P BLANCO  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4623 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2601**  
 PCA/HEXTE OBSERVATIONS OF NGC253 AND M82  
 05/21/1997 - 05/31/1999 FY00: -\$1 Total: \$24,354  
 Prin. Invest.: Y REPHAELI  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4648 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2602**  
 MICROGRAVITY IN VITRO MODEL OF BONE: FLOW EFFECTS  
 06/11/1997 - 05/31/2000 FY00: \$93,598 Total: \$421,536  
 Prin. Invest.: J A FRANGOS  
 Tech. Officer: GSFC/M AVERNER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 4658 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2603**  
 THEORETICAL STUDIES OF MAGNETIC RECONNECTION  
 06/09/1997 - 05/14/2001 FY00: \$0 Total: \$243,248  
 Prin. Invest.: D B QUEST  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 4671 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2604**  
 SURFACE CHEMICAL COMPOSITION DETERMINATION FROM TH EXPERI-  
 MENT  
 06/06/1997 - 05/31/1999 FY00: \$0 Total: \$6,697  
 Prin. Invest.: D R ARNOLD  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4775 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2605**  
 AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A  
 TRMM VALIDATION EFFORT  
 07/15/1997 - 06/30/2001 FY00: \$44,000 Total: \$173,000  
 Prin. Invest.: J O ROADS  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4937 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2606**  
 AMINO ACIDS AND OTHER ORGANIC COMPONENTS IN ANTARC  
 06/23/1997 - 05/31/2000 FY00: \$0 Total: \$90,000  
 Prin. Invest.: J L BADA  
 Tech. Officer: GSFC/J M BOYCE  
 CASE Category: 11 - ASTRONOMY

**CALIFORNIA**
**NASA'S UNIVERSITY PROGRAM**

**NAG 5 4938 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2607**  
 MICRO-DETECTION SYSTEM FOR DETERMINATION OF THE BI OF AMINO ACIDS  
 06/23/1997 - 05/31/2001 FY00: \$0 Total: \$130,000  
*Prin. Invest.:* P L BADA  
*Tech. Officer:* GSFC/B CAMPBELL  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4948 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2608**  
 ISOTOPIC FRACTIONATION PROCESSES DURING PRE-SOLAR  
 06/23/1997 - 04/30/2000 FY00: \$0 Total: \$115,900  
*Prin. Invest.:* D H THIEMENS  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 5111 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2609**  
 BALLOON-BORNE HIGH ENERGY X-RAY SPECTROMETER (HEXIS) BASED ON CZT TECHNOLOGY  
 04/07/1997 - 10/31/2000 FY00: \$0 Total: \$1,072,750  
*Prin. Invest.:* J L MATTESON  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5176 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2610**  
 GLOBAL BATHYMETRIC PREDICTION FOR OCEAN MODELING A  
 07/17/1997 - 07/14/2001 FY00: \$26,221 Total: \$148,524  
*Prin. Invest.:* D T SANDWELL  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 5266 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2611**  
 CRYOGENIC WHOLE AIR SAMPLING OF CARBON DIOXIDE IN THE UPPER ATMOSPHERE  
 06/01/2000 - 05/24/2003 FY00: \$50,700 Total: \$50,700  
*Prin. Invest.:* M H THIEMENS  
*Tech. Officer:* GSFC/J C BRINTON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5287 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2612**  
 BALLOON-BORNE HIGH ENERGY X-RAY IMAGING SPECTROMETER (HEXIS) BASED ON CZT TECHNOLOGY  
 05/31/2000 - 05/17/2003 FY00: \$145,000 Total: \$145,000  
*Prin. Invest.:* J L MATTESON  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6135 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2613**  
 VALIDATING THE USEFULNESS OF THE COMBINED GMS & GO FOR LONG-TERM GLOBAL CLIMATE CHANGE STUDIES  
 08/13/1997 - 06/30/2001 FY00: \$0 Total: \$485,000  
*Prin. Invest.:* J J SIMPSON  
*Tech. Officer:* GSFC/J C DODGE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 6149 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2614**  
 OCEAN TIDE LOADING COMPUTATION  
 08/21/1997 - 08/31/2001 FY00: \$0 Total: \$41,810  
*Prin. Invest.:* D C AGNEW  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 6150 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2615**  
 SEAFLOOR GEODETIC MONITORING USING GPS AND ACOUSTIC ATION TO NATURAL HAZARDS ON THE SE FLANK OF HAWAI  
 08/21/1997 - 08/31/2000 FY00: \$131,000 Total: \$524,757  
*Prin. Invest.:* J B RAND, NONE  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 6179 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2616**  
 CONTINUOUS REMOTE MEASUREMENTS OF ATMOSPHERIC O<sub>2</sub> C RELATION TO INTERANNUAL VARIATIONS IN BIOLOGICAL  
 08/19/1997 - 08/14/2001 FY00: \$65,000 Total: \$407,349  
*Prin. Invest.:* R KEELING  
*Tech. Officer:* GSFC/J A YODER  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 5 6202 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2617**  
 EFFECTS OF WHITECAPS ON SATELLITE-DERIVED OCEAN COLOR  
 10/02/1997 - 12/31/2000 FY00: \$104,000 Total: \$490,000  
*Prin. Invest.:* R FROUIN  
*Tech. Officer:* GSFC/J A YODER  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6327 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2618**  
 AN INVESTIGATION OF MID-OCEAN MESOSCALE VARIABILITY OF REAL OCEAN DATA AND A QUASI-GEOSTROPHIC MODEL  
 09/23/1997 - 09/30/1998 FY00: -\$38,206 Total: \$0  
*Prin. Invest.:* B CORNUELLE  
*Tech. Officer:* GSFC/E LINSTROM  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6375 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2619**  
 BIOGEOCHEMICAL RESPONSE TO MESOSCALE PHYSICAL FORCING IN THE CALIFORNIA CURRENT SYSTEM  
 10/03/1997 - 03/31/2001 FY00: \$45,026 Total: \$424,978  
*Prin. Invest.:* P MILLER  
*Tech. Officer:* GSFC/J A YODER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6414 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2620**  
 MODELING UV-B EFFECTS ON PRIMARY PRODUCTION THROUGHOUT THE SOUTHERNOCEAN USING MULTI-SENSOR SA  
 10/29/1997 - 10/31/2001 FY00: \$0 Total: \$396,868  
*Prin. Invest.:* D LUBIN  
*Tech. Officer:* GSFC/K ARRIGO  
*CASE Category:* 54 - ENVIRONMENTAL BIOLOGY

**NAG 5 6466 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2621**  
 OPTICAL AND ANCILLARY MEASUREMENTS AT HIGH LATITUDES IN SUPPORT OF THE MODIS OCEAN VALIDATION  
 11/04/1997 - 09/30/2001 FY00: \$92,644 Total: \$224,288  
*Prin. Invest.:* D STRAMSKI, NONE  
*Tech. Officer:* GSFC/D STARR  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6475 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2622**  
 SOLAR WIND MODELING FROM HELIOSPHERIC MISSIONS IN SITU DATA  
 AND EARTH-BASED REMOTE SENSING OBSERVATI  
 11/13/1997 - 04/30/2000 FY00: \$0 Total: \$84,000  
 Prin. Invest.: B JACKSON  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6497 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2623**  
 PREDICTABILITY OF THE CALIFORNIA CURRENT SYSTEM  
 10/08/1997 - 10/14/2001 FY00: \$141,885 Total: \$633,198  
 Prin. Invest.: D MILLER  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6559 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2624**  
 SEASONAL TO DECADAL-SCALE VARIABILITY IN SATELLITE OCEAN  
 COLOR AND SEA SURFACE TEMPERATURE FOR THE  
 10/27/1997 - 10/31/2000 FY00: \$111,000 Total: \$352,860  
 Prin. Invest.: B MITCHELL  
 Tech. Officer: GSFC/J YODER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6595 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2625**  
 EARTH REMOTE SENSING CENTER OF EXCELLENCE AT SCRIP PS INSTITU-  
 TION OF OCEANOGRAPHY  
 12/15/1997 - 09/30/1999 FY00: \$0 Total: \$352,528  
 Prin. Invest.: G MITCHELL  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6668 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2626**  
 SOUTHERN OCEAN SEASONAL NET PRODUCTION FROM ATMOSP HERE  
 AND OCEAN DATASETS  
 11/26/1997 - 12/31/2000 FY00: \$106,441 Total: \$311,173  
 Prin. Invest.: R F KEELING  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6931 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2627**  
 EQUATOR-S: MISSION OPERATIONS & DATA ANALYSIS PHASE  
 02/02/1998 - 01/31/2001 FY00: \$0 Total: \$120,202  
 Prin. Invest.: C E MCILWAIN  
 Tech. Officer: GSFC/M HESSE  
 CASE Category: 13 - PHYSICS

**NAG 5 6947 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2628**  
 NUMERICAL AND ANALYTICAL STUDIES OF THE SHOCKED SOLAR WIND  
 INTERACTION WITH THE DAYSIDE MANTLE OF V  
 02/26/1998 - 03/31/2001 FY00: \$75,339 Total: \$235,914  
 Prin. Invest.: K QUEST  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7000 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2629**  
 HIGH RESOLUTION STUDY OF THE X-RAY TURN-ON IN HER X-1  
 02/06/1998 - 02/14/2001 FY00: \$0 Total: \$14,739  
 Prin. Invest.: D GRUBER  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7023 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2630**  
 USING 3C273 TO CROSS-CALIBRATE XTE, ASCA AND SAXXTE PROPOSAL -  
 AO1  
 02/12/1998 - 02/14/2000 FY00: \$0 Total: \$6,748  
 Prin. Invest.: P BLANCO  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7045 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2631**  
 THEORETICAL STUDIES IN COSMIC RAY AND GAMMA RAY ASTROPHYSICS  
 AND LIGHT ELEMENT NUCLEOSYNTHESIS -  
 03/18/1998 - 02/28/2001 FY00: \$64,018 Total: \$188,290  
 Prin. Invest.: R E LINGENFELTER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7096 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2632**  
 ANOMALOUS HEAT BUDGETS IN INTERIOR PACIFIC OCEAN ON SEASONAL  
 TO INTERANNUAL TIMESCALES  
 05/27/1998 - 12/31/2001 FY00: \$141,684 Total: \$346,416  
 Prin. Invest.: W WHITE  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 7100 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2633**  
 OPTICAL MEASUREMENTS AND MODELING TO ESTIMATE CONCENTRA-  
 TIONS AND FLUXES OF ORGANIC MATTER IN THE SO  
 06/04/1998 - 05/31/2001 FY00: \$58,409 Total: \$469,864  
 Prin. Invest.: D STRAMSKI  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7119 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2634**  
 ANALYSIS OF SKY FLUCTUATIONS FROM HEXTE III; EXAMINATION OF THE  
 CYCLOTRON LINES IN THE SPECTRUM OF  
 04/16/1998 - 03/31/2001 FY00: \$0 Total: \$26,128  
 Prin. Invest.: D E GRIBER  
 Tech. Officer: GSFC/K SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7277 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2635**  
 XTE PROPOSAL - THE POWER OF SS433'S JETS  
 04/15/1998 - 04/14/1999 FY00: \$0 Total: \$7,500  
 Prin. Invest.: D BAND  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7295 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2636**  
 CORONAL RECONSTRUCTION USING LASCO AND UVCS OBSERVATIONS  
 04/13/1998 - 10/31/1999 FY00: \$0 Total: \$80,000  
 Prin. Invest.: P HICK  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7332 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2637**  
 HIGH ENERGY SPECTRA AND VARIABILITY OF LOW REDSHIFT AGN:  
 NARROW LINE X-RAY GALAXIES.  
 04/24/1998 - 06/30/2000 FY00: \$0 Total: \$9,323  
 Prin. Invest.: P R BLANCO  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7362 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2638**  
 ASCA PROPOSAL - ASCA AND HST OBSERVATIONS OF BL LA C 0236+164  
 AND THE INTERVENING SYSTEM  
 05/05/1998 - 04/30/2001 FY00: \$0 Total: \$14,000  
*Prin. Invest.:* R D COHEN  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7400 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2639**  
 A HARD X-RAY SPECTRUM OF THE HIDDEN QUASAR IN THE NARROW LINE  
 RADIO GALAXY 3C321  
 05/13/1998 - 05/31/2000 FY00: \$0 Total: \$15,100  
*Prin. Invest.:* R COHEN  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7440 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2640**  
 XTE PROPOSAL (30183) CONFIRMATION OF THE TWO GAMMA-RAY SPEC-  
 TRAL STATES OF GRS1915+105  
 06/02/1998 - 06/30/1999 FY00: -\$6 Total: \$9,057  
*Prin. Invest.:* W A HEINDL  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7612 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2641**  
 IMPROVED SPECTRAL CHARACTERIZATION OF THE GEOMAGNETIC  
 FIELD (SENH98-0124)  
 07/24/1998 - 01/31/2001 FY00: \$75,000 Total: \$187,000  
*Prin. Invest.:* R L PARKER  
*Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/H B FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7614 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2642**  
 FUNDING FOR "EARTH CONDUCTIVITY FROM SATELLITE MAGNETIC  
 DATA" (SENH98-0123)  
 07/24/1998 - 01/14/2001 FY00: \$85,000 Total: \$212,000  
*Prin. Invest.:* C G CONSTABLE  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7637 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2643**  
 CO2 BUDGET AND ATMOSPHERIC RECTIFICATION OVER NORTH AMERICA  
 (CO2BAR)  
 11/30/1998 - 11/30/2001 FY00: \$0 Total: \$45,000  
*Prin. Invest.:* R F KEELING  
*Tech. Officer:* GSFC/D E WICKLANS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7643 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2644**  
 XTE PROPOSAL - (20102) SS 433' HIGH ENERGY SPECTRUM  
 08/26/1998 - 08/31/1999 FY00: -\$178 Total: \$24,494  
*Prin. Invest.:* D BAND  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7653 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2645**  
 QUANTITATIVE ASSESSMENT OF THE INTEGRATED RESPONSE IN GLOBAL  
 HEAT AND MOISTURE BUDGETS TO CHANGING  
 08/25/1998 - 08/31/2001 FY00: \$70,000 Total: \$210,000  
*Prin. Invest.:* W WHITE  
*Tech. Officer:* HQ/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7836 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2646**  
 CORONAL SPEEDS DETERMINED FROM CORRELATION TECHNIQUES  
 APPLIED TO LASCO IMAGES  
 12/14/1998 - 12/14/2000 FY00: \$0 Total: \$80,000  
*Prin. Invest.:* B V JACKSON  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7887 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2647**  
 SPECTRAL TESTS OF THE HOMOGENEITY OF BRIGHT GRBS  
 12/02/1998 - 11/30/1999 FY00: \$0 Total: \$5,000  
*Prin. Invest.:* J SISTERSON  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7896 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2648**  
 THE BROAD BAND SPECTRA OF COMPTON-THIN SEYFERT 2 GALAXIES  
 WITH BEPOSAX ADP 98  
 12/07/1998 - 12/14/1999 FY00: -\$31 Total: \$10,441  
*Prin. Invest.:* P R BLANCO  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8167 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2649**  
 FRAGMENTARY SOLAR SYSTEM HISTORY  
 02/10/1999 - 01/31/2001 FY00: \$119,000 Total: \$239,000  
*Prin. Invest.:* D MARTI  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8170 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2650**  
 UV-VISIBLE SPECTROSCOPIC METHODS AND MODELS FOR ASSESSMENT  
 AND MONITORING OF HARMFUL ALGAL BLOOMS  
 02/16/1999 - 01/31/2000 FY00: \$0 Total: \$82,715  
*Prin. Invest.:* B G MITCHELL  
*Tech. Officer:* GSFC/J CAMPBELL  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8172 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2651**  
 ISOTOPIC, CHEMICAL AND MINERALOGICAL INVESTIGATIONS OF  
 EXTRATERRESTRIAL MATERIALS  
 02/24/1999 - 02/28/2001 FY00: \$275,000 Total: \$495,000  
*Prin. Invest.:* G W LUNGMAIR  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8180 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2652**  
 ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAGE)  
 02/12/1999 - 12/31/2000 FY00: \$84,851 Total: \$178,189  
*Prin. Invest.:* R F WEISS  
*Tech. Officer:* GSFC/P DECOLA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8252 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2653**  
 ANTARCTIC ULTRAVIOLET RADIATION CLIMATOLOGY FROM THE TOTAL  
 ZONE MAPPING SPECTROMETER  
 02/19/1999 - 02/28/2001 FY00: \$95,000 Total: \$190,000  
 Prin. Invest.: D LUBIN  
 Tech. Officer: GSFC/J R HERMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8272 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2654**  
 A SEARCH FOR EXTRASOLAR PLANETS IN OPEN CLUSTERS  
 03/05/1999 - 02/28/2001 FY00: \$35,000 Total: \$84,400  
 Prin. Invest.: D GUIRRENBACH  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8292 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2655**  
 SEASONAL ATMOSPHERIC AND OCEANIC PREDICTIONS  
 02/25/1999 - 02/28/2001 FY00: \$140,000 Total: \$280,000  
 Prin. Invest.: J O ROADS  
 Tech. Officer: GSFC/M REINECKER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8322 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2656**  
 BAYESIAN HIERARCHICAL AIR-SEA INTERACTION MODELLING: APPLICATION TO THE LABRADOR SEA  
 04/13/1999 - 05/31/2001 FY00: \$6,252 Total: \$56,252  
 Prin. Invest.: P NILER  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8351 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2657**  
 THE APPLICATION OF JASON-1 MEASUREMENTS TO ESTIMATE THE  
 GLOBAL NEARSURFACE OCEAN CIRCULATION  
 03/01/1999 - 03/31/2001 FY00: \$102,000 Total: \$252,000  
 Prin. Invest.: P P NILER  
 Tech. Officer: GSFC/C KOBLINSKY  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 8498 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2658**  
 THE HIGH ENERGY X-RAY IMAGING SURVEY (HEXIS)  
 05/27/1999 - 05/31/2001 FY00: \$270,119 Total: \$755,000  
 Prin. Invest.: R E ROTHSCHILD  
 Tech. Officer: GSFC/L KALUZIENSKI  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 8504 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2659**  
 RECONSTRUCTION OF THE PLASMA DISTRIBUTION IN CORONA AND  
 HELIOSPHERIC  
 05/11/1999 - 04/30/2001 FY00: \$76,453 Total: \$119,802  
 Prin. Invest.: B V JACKSON  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8551 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2660**  
 ORGANIC CONSTITUENTS OF SHORT-PERIOD COMETS  
 06/04/1999 - 05/31/2001 FY00: \$70,343 Total: \$144,722  
 Prin. Invest.: M N FOMENKOVA  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8610 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2661**  
 ANALYSIS & INTERPRETATION OF LUNAR PROSPECTOR GRS/NS DATA  
 06/10/1999 - 06/30/2000 FY00: \$0 Total: \$15,000  
 Prin. Invest.: J R ARNOLD  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8623 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2662**  
 NUMERICAL CLIMATE OBSERVING NETWORK DESIGN STUDY  
 08/09/1999 - 08/31/2001 FY00: \$47,481 Total: \$193,798  
 Prin. Invest.: D STAMMER  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8731 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2663**  
 ADVANCED CADMIUM-ZINC-TELLURIDE DETECTORS FOR RESEARCH IN  
 ASTROPHYSICS  
 08/17/1999 - 08/14/2000 FY00: \$0 Total: \$157,262  
 Prin. Invest.: J L MATTESON  
 Tech. Officer: GSFC/F A HERRERO  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8768 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2664**  
 DYNAMIC HUMAN-CENTERED INTERFACES: MONITORING AND CONTROL OF  
 CRITICAL SYSTEMS  
 08/26/1999 - 08/31/2000 FY00: \$157,606 Total: \$199,011  
 Prin. Invest.: T JUNG  
 Tech. Officer: GSFC/R CROUCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8780 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2665**  
 ROUTINE HIGH-RESOLUTION, ATMOSPHERIC FORECAST/ANALYSIS  
 MODELING SYSTEMS FOR THE PACIFIC DISASTER CENTER  
 08/30/1999 - 08/31/2001 FY00: \$0 Total: \$575,555  
 Prin. Invest.: J R OADS  
 Tech. Officer: GSFC/E PAYLOR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8901 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2666**  
 ESTIMATING THE OCEAN FLOW FIELD FROM COMBINED SEA SURFACE  
 TEMPERATURE AND SEASURFACE HEIGHT DATA  
 01/04/2000 - 01/14/2001 FY00: \$143,292 Total: \$143,292  
 Prin. Invest.: D STAMMER  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9005 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2667**  
 ANALYSIS AND INTERPRETATION OF NEAR XGRS DATA  
 01/27/2000 - 01/31/2001 FY00: \$15,000 Total: \$15,000  
 Prin. Invest.: J R ARNOLD  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9036 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2668**  
 MEASUREMENT OF ELECTRIC FIELDS WITH MULTIPLE SPREAD ELECTRON  
 BEAMS  
 02/10/2000 - 02/14/2001 FY00: \$92,500 Total: \$92,500  
 Prin. Invest.: C MCILWAIN  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9122 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2669**  
 PROBING THE SPECTRAL EVOLUTION OF PARTICLES IN THE BLAZAR MKN 421 ADP99  
 03/07/2000 - 03/14/2001 FY00: \$49,592 Total: \$49,592  
*Prin. Invest.:* R ROTHSCCHILD  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9224 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2670**  
 COSMOLOGICAL PARAMETERS FROM THE LYMAN-ALPHA FOREST (LTSA 99)  
 03/14/2000 - 03/14/2001 FY00: \$87,973 Total: \$87,973  
*Prin. Invest.:* D TYTLER  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9247 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2671**  
 THERMAL & NONTHERMAL COMPONENTS IN THE SPECTRA OF A2319 & A1367 FROM RXTE & SAX OBSERVATIONS (ADP 99)  
 03/14/2000 - 03/14/2001 FY00: \$49,739 Total: \$49,739  
*Prin. Invest.:* Y REPHAELI, NONE  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9314 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2672**  
 3-D GLOBAL KINETIC SIMULATIONS OF SOLAR WIND INTER ACTION WITH ASTEROIDS: DETERMINATION OF MAGNETIC P  
 03/23/2000 - 03/14/2001 FY00: \$89,723 Total: \$89,723  
*Prin. Invest.:* N OMIDI  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9423 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2673**  
 TOMOGRAPHIC ANALYSIS AND VISUALIZATION OF REMOTELY -SENSED HELIOSPHERIC DATA  
 04/13/2000 - 04/29/2001 FY00: \$98,000 Total: \$98,000  
*Prin. Invest.:* B V JACKSON  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9506 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2674**  
 THE PIXON METHOD FOR DATA COMPRESSION, IMAGE CLASSIFICATION, AND IMAGE RECONSTRUCTION  
 04/26/2000 - 04/30/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* R P PUETTER  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9566 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2675**  
 EMERGENCE OF RNA AND EARLY LIFE; EXPERIMENTAL MODELING AND GEOCHEMICAL CONSTRAINTS  
 05/05/2000 - 05/14/2001 FY00: \$80,000 Total: \$80,000  
*Prin. Invest.:* G ARRHENIUS  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 9623 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2676**  
 TOPOGRAPHIC RECOVERY FROM SPACEBORNE RADAR & LASED RANGING: VALIDATION & INVESTIGATION OF PLATE BOUNDARIES  
 06/12/2000 - 05/31/2001 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* D T SANDWELL  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9659 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2677**  
 MICRO-DETECTION SYSTEM FOR DETERMINATION OF THE BIOTIC OR ABIOTIC ORIGIN OF AMINO ACIDS  
 05/31/2000 - 05/31/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* J L BADA  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9679 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2678**  
 ISOTOPIC FRACTIONATION PROCESSES DURING PRE-SOLAR GRAIN FORMATION  
 06/15/2000 - 06/14/2001 FY00: \$35,000 Total: \$35,000  
*Prin. Invest.:* M H THIEMENS  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9721 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2679**  
 A PHYSICALLY BASED APPROACH TO CONSTRUCTION OF A CLIMATE-QUALITY SST RECORD FROM COMPLEMENTARY SP  
 06/22/2000 - 06/30/2001 FY00: \$112,500 Total: \$112,500  
*Prin. Invest.:* J J SIMPSON, NONE  
*Tech. Officer:* GSFC/J DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9788 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2680**  
 OCEAN CARBON FLUX: TRANSPORTS & BURIAL WITHIN THE WESTERN & EASTERN U.S. COASTAL ZONES  
 07/28/2000 - 07/31/2001 FY00: \$93,750 Total: \$93,750  
*Prin. Invest.:* A MILLER  
*Tech. Officer:* GSFC/E LINSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9825 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2681**  
 RXTE OBSERVATIONS OF AGN (ADP 99)  
 08/15/2000 - 08/14/2001 FY00: \$20,000 Total: \$20,000  
*Prin. Invest.:* P R BLANCO  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1516 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2682**  
 VARIABILITY AND PREDICTABILITY OF LAND-ATMOSPHERE OBSERVATIONAL AND MODELING STUDIES  
 05/12/1998 - 04/30/2001 FY00: \$55,581 Total: \$161,023  
*Prin. Invest.:* J ROADS  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 8 1571 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2683**  
 CARTILAGE TISSUE ENGINEERING: CIRCUMFERENTIAL SEEDING OF CHONDROCYTES USING ROTATING BIOREACTORS  
 01/12/1999 - 11/30/2002 FY00: \$144,000 Total: \$261,000  
*Prin. Invest.:* R L SAH  
*Tech. Officer:* JSC/D R MORRISON  
*CASE Category:* 56 - MEDICAL

**NAG 8 1589 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2684**  
 NOVEL STRATEGY FOR TRI-DIMENSIONAL IN VITRO BONE INDUCTION  
 02/25/1999 - 11/30/2002 FY00: \$123,000 Total: \$213,000  
 Prin. Invest.: J A FRANGOS  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1002 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2685**  
 DETERMIN OXYGEN BLANK & SUITABILITY CVD DIAMOND  
 04/30/1998 - 04/29/2001 FY00: \$52,000 Total: \$340,000  
 Prin. Invest.: M H THIEMENS  
 Tech. Officer: JSC/E K STANSBERRY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAGW 2034 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2686**  
 GLOBAL ATMOSPHERIC GASES EXPERIMENT (GAGE)  
 07/16/1990 - 09/30/1998 FY00: \$0 Total: \$2,996,869  
 Prin. Invest.: R F WEISS  
 Tech. Officer: HQ/M J KURYLO, HQ/M J PRATHER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 98141 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2687**  
 A STUDY OF CLOUD RADIATIVE FORCING AND FEEDBACK (CERES)  
 10/30/1998 - 10/29/2000 FY00: \$254,998 Total: \$455,016  
 Prin. Invest.: V RAMANATHAN  
 Tech. Officer: LARC/B A WIELUCKI, LARC/R L HUFFMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 30720 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2688**  
 HIGH ENERGY X-RAY TIMING EXPERIMENT FOR XTE PROJECT  
 11/01/1989 - 09/30/2002 FY00: \$617,998 Total: \$30,028,322  
 Prin. Invest.: R E ROTHSCCHILD  
 Tech. Officer: GSFC/W D DAVIS  
 CASE Category: 11 - ASTRONOMY

**NAS 5 33019 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2689**  
 GLRS SCIENCE TEAM MEMBER STUDY  
 10/05/1989 - 11/30/1998 FY00: -\$1 Total: \$669,751  
 Prin. Invest.: J B MINSTER  
 Tech. Officer: GSFC/G SOFFEN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 97121 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2690**  
 PULSE SHAPE DISCRIMINATOR FOR INTEGRAL SPECTROMETER (LETTER CONTRACT)  
 01/24/1997 - 10/30/2000 FY00: \$1,892,112 Total: \$5,149,112  
 Prin. Invest.: J L MATTESON, R P LIN  
 Tech. Officer: GSFC/J P MURPHY  
 CASE Category: 11 - ASTRONOMY

**NAS 5 97130 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2691**  
 BIO-OPTIONAL MEASUREMENT-MODELING OF CA CURRENT & POLAR OCEAN  
 08/18/1997 - 11/30/2000 FY00: \$75,000 Total: \$858,048  
 Prin. Invest.: B G MITCHELL  
 Tech. Officer: GSFC/C R MCCLAIN  
 CASE Category: 33 - OCEANOGRAPHY

**NAS 5 97135 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2692**  
 SATELLITE OCEAN COLOR VALIDATION USING MERCHANT SHIP  
 09/22/1997 - 11/30/2000 FY00: \$30,629 Total: \$486,989  
 Prin. Invest.: R FROUIN  
 Tech. Officer: GSFC/J L MUELLER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 97139 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2693**  
 RESEARCH--ATMOSPHERIC CORRECTION ALGORITHMS FOR OCEAN COLOR REMOTE SENSING  
 09/23/1997 - 05/22/2000 FY00: \$0 Total: \$220,000  
 Prin. Invest.: K STAMNES  
 Tech. Officer: GSFC/J MUELLER  
 CASE Category: 33 - OCEANOGRAPHY

**NAS 5 99006 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2694**  
 GLAS SCIENCE TEAM LEADER.  
 11/25/1998 - 11/30/2004 FY00: \$305,000 Total: \$530,000  
 Prin. Invest.: J B MINSTER  
 Tech. Officer: GSFC/G SMITH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 99120 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2695**  
 TRIANA SCIENCE INVESTIGATION  
 12/09/1998 - 09/30/2003 FY00: \$8,157,672 Total: \$22,938,672  
 Prin. Invest.: F VALCRO  
 Tech. Officer: GSFC/J WATZIM, GSFC/C TOOLEY  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 9 19434 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2696**  
 LIFE SCIENCES FLIGHT EXPERIMENT E198, SLEEP & RESPIRATION IN MICROGRAVITY  
 12/06/1995 - 09/30/2000 FY00: \$19,697 Total: \$1,539,563  
 Prin. Invest.: J B WEST  
 Tech. Officer: JSC/S G SAWYER  
 CASE Category: 56 - MEDICAL

**NAS 9 98124 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2697**  
 EFFECT OF EVA & LONG-TERM EXPOSURE TO MICROGRAVITY ON PULMONARY FUNCTION  
 03/02/1999 - 06/30/2002 FY00: \$685,329 Total: \$965,329  
 Prin. Invest.: J B WEST  
 Tech. Officer: JSC/S M MCCULLUM  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 1 305 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2698**  
 PILOT STUDY OF SONIC BOOM PENETRATION INTO THE OCEAN  
 07/06/1998 - 03/31/2000 FY00: \$1 Total: \$120,297  
 Prin. Invest.: R A SOHN  
 Tech. Officer: LARC/G L MCANINCH, LARC/K P SHEPHARD  
 CASE Category: 13 - PHYSICS

**NCC 2 978 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2699**  
 NONINVASIVE MEASUREMENT OF INTERCRANIAL PRESSURE USING ULTRASOUND  
 02/04/1997 - 12/31/1999 FY00: \$0 Total: \$609,667  
 Prin. Invest.: R A PEDOWITZ  
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS  
 CASE Category: 56 - MEDICAL

**NCC 2 996 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2700**  
 TRAINING REQUIREMENTS FOR AUTOFLIGHT USE IN A DATA LINK ATC  
 ENVIRONMENT  
 06/11/1997 - 09/30/1998 FY00: \$0 Total: \$76,999  
*Prin. Invest.:* E HUTCHINS  
*Tech. Officer:* ARC/S CASNER, ARC/E A PALMER  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NCC 2 1032 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2701**  
 A LONGITUDINAL STUDY OF SKILL ACQUISITION IN AUTOMATION-  
 EQUIPPED COMMERCIAL TRANSPORT AIRCRAFT  
 05/18/1998 - 04/30/1999 FY00: \$0 Total: \$54,824  
*Prin. Invest.:* E L HUTCHENS  
*Tech. Officer:* ARC/S M CASNER  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NCC 2 1034 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2702**  
 STUDENT/MENTOR DESIGN PROJECTS FOR PLANETARY ENTRY &  
 SAMPLE RETURN MISSIONS  
 04/29/1998 - 12/31/1999 FY00: \$0 Total: \$174,800  
*Prin. Invest.:* J R ARNOLD, M J WISKERCHEN  
*Tech. Officer:* ARC/D J RASKY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1133 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2703**  
 LOWER BODY NEGATIVE PRESSURE AS A COUNTERMEASURE FOR  
 SPACEFLIGHT DECONDITIONING  
 08/02/1999 - 07/14/2001 FY00: \$283,087 Total: \$544,363  
*Prin. Invest.:* C ROGERS  
*Tech. Officer:* ARC/E M HOLTON  
*CASE Category:* 56 - MEDICAL

**NCC 2 1135 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2704**  
 DEVELOPMENT OF TENSEGRITY CONCEPTS FOR TRANSFORMABLE  
 ENTRY AEROSHELL  
 08/25/1999 - 12/14/1999 FY00: \$0 Total: \$23,000  
*Prin. Invest.:* R E SKELTON  
*Tech. Officer:* ARC/H K TRAN, ARC/M REZIN  
*CASE Category:* 46 - MECHANICAL ENGR

**NCC 2 1196 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2705**  
 NON-INVASIVE INTRACRANIAL PRESSURE MEASUREMENT FOR SPACE  
 FLIGHT - SPACE PHYSIOLOGY & COUNTERMEASURE  
 09/29/2000 - 08/31/2001 FY00: \$77,000 Total: \$77,000  
*Prin. Invest.:* C ROGERS  
*Tech. Officer:* ARC/E M HOLTON, ARC/B P DALTON  
*CASE Category:* 56 - MEDICAL

**NCC 2 5232 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2706**  
 AN EVALUATION OF BIOGENICITY IN ALH84001  
 08/12/1997 - 03/31/2000 FY00: \$0 Total: \$14,676  
*Prin. Invest.:* G ARRHemus, S MORGAN  
*Tech. Officer:* ARC/D BLAKE  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5302 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2707**  
 TECHNOLOGY FOR MOLECULAR-LEVEL COMPUTER MODELING OF  
 PROTOCELLULAR  
 12/22/1998 - 10/14/2000 FY00: \$78,813 Total: \$153,259  
*Prin. Invest.:* V GALINSKY  
*Tech. Officer:* ARC/A POHORILLE, ARC/M H NEW  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NCC 3 407 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2708**  
 SCIENTIFIC SUPPORT FOR A PROPOSED SPACE SHUTTLE DR OPLET  
 BURNING EXPERIMENT  
 02/28/1995 - 11/30/1999 FY00: \$0 Total: \$451,002  
*Prin. Invest.:* F A WILLIAMS  
*Tech. Officer:* GRC/H D ROSS  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 3 506 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2709**  
 STRETCHED DIFFUSION FLAMES IN VON KARMAN SWIRLING FLOWS  
 09/25/1996 - 01/01/2001 FY00: \$60,772 Total: \$170,709  
*Prin. Invest.:* F A WILLIAMS, NONE  
*Tech. Officer:* GRC/K R SACKSTEDER, GRC/H D ROSS  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 3 569 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2710**  
 NEW APPROACHES FOR INTEGRALLY DAMPED COMPOSITE FAN BLADES  
 07/25/1997 - 10/17/2000 FY00: \$0 Total: \$98,436  
*Prin. Invest.:* J KOSMATKA  
*Tech. Officer:* GRC/O MEHMED  
*CASE Category:* 46 - MECHANICAL ENGR

**NCC 3 693 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2711**  
 HIGH-PRESSURE COMBUSTION OF BINARY FUEL SPRAYS HIGH-PRES-  
 SURE COMBUSTION OF BINARY FUEL SPRAYS  
 03/25/1999 - 01/03/2003 FY00: \$45,859 Total: \$79,576  
*Prin. Invest.:* F A WILLIAMS  
*Tech. Officer:* GRC/D L DIETRICH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 3 695 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2712**  
 DYNAMICS OF DROPLETS EXTINCTION IN SLOW CONVECTIVE FLOWS  
 03/25/1999 - 01/13/2003 FY00: \$7,865 Total: \$15,356  
*Prin. Invest.:* F A WILLIAMS  
*Tech. Officer:* GRC/D L URBAN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 3 741 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2713**  
 EXPERIMENTAL SPIN TESTING OF INTEGRALLY DAMPED COMPOSITE FAN  
 BLADES  
 11/15/1999 - 10/17/2000 FY00: \$9,139 Total: \$9,139  
*Prin. Invest.:* J KOSMATKA  
*Tech. Officer:* GRC/O MEHMED  
*CASE Category:* 13 - PHYSICS

**NCC 3 769 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2714**  
 SCIENTIFIC SUPPORT FOR A PROPOSED SPACE SHUTTLE DR OPLET  
 BURNING EXPERIMENT  
 02/08/2000 - 12/13/2002 FY00: \$119,000 Total: \$119,000  
*Prin. Invest.:* F A WILLIAMS  
*Tech. Officer:* GRC/D L URBAN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 3 819 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2715**  
 INTEGRAL DAMPING OF A TRAILING EDGE BLOWING FAN BLADE  
 07/31/2000 - 10/13/2000 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* D KOSMATKA  
*Tech. Officer:* GRC/O MEHMED  
*CASE Category:* 49 - ENGINEERING, OTHER



**NCC 5 230 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2716**  
 CORRELATED NOISE IN GPS TIME SERIES AND ITS EFFECT MODELS  
 08/22/1997 - 08/31/2001 FY00: \$0 Total: \$92,292  
 Prin. Invest.: D C AGNEW  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NCC 5 257 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2717**  
 EARTHKAM (EARTH KNOWLEDGE ACQUIRED BY MIDDLE SCHOOL)  
 11/25/1997 - 10/31/2000 FY00: \$820,196 Total: \$2,274,999  
 Prin. Invest.: D K RIDE  
 Tech. Officer: HQ/P MOUMNTJOY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 9 105 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2718**  
 CHARACTERIZATION OF AUTONOMIC FUNCTION  
 02/21/2000 - 02/20/2003 FY00: \$21,060 Total: \$21,060  
 Prin. Invest.: P J MILLS  
 Tech. Officer: JSC/J M YELLE  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 9 106 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2719**  
 CHARACTERIZATION OF AUTOMIC FUNCTION  
 02/16/2000 - 03/31/2003 FY00: \$120,120 Total: \$120,120  
 Prin. Invest.: M G ZEIGLER  
 Tech. Officer: JSC/J M YELLE  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NGT 1 52133 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2720**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/14/1996 - 06/30/1999 FY00: -\$22 Total: \$54,978  
 Prin. Invest.: J M SCHOPF, F BERMAN  
 Tech. Officer: LARC/R HATHAWAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 2 52251 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2721**  
 ACHIEVING APPLICATION PERFORMANCE ON THE INFORMATION POWER GRID  
 09/18/1998 - 08/14/2001 FY00: \$28,000 Total: \$54,000  
 Prin. Invest.: F BERMAN  
 Tech. Officer: ARC/C H SCHULBACK  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 3 52333 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2722**  
 GRADUATE STUDENT RESEARCHES PROGRAM  
 06/11/1997 - 12/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J KOSMATKA  
 Tech. Officer: GRC/F J MONTAGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 5 42 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2723**  
 FELLOWSHIP FOR GRADUATE STUDENTS WITH THE JOINT CE SYSTEM SCIENCE (JCOSS)  
 06/17/1997 - 05/31/2000 FY00: \$0 Total: \$150,000  
 Prin. Invest.: F VALERO  
 Tech. Officer: GSFC/A J BUSALACCHI  
 CASE Category: 33 - OCEANOGRAPHY

**NGT 5 106 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2724**  
 THE INFLUENCES OF LIGHT ON PHYTOPLANKTON FLUORESCENCE AND PRODUCTIVITY (STUDENT: JESSICA NOLAN)  
 05/30/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: B G MITCHELL, NONE  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 33 - OCEANOGRAPHY

**NGT 5 30036 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2725**  
 OCEAN COLOR MODELS OF PRIMARY PRODUCTION FOR PHAEO POLAR REGIONS  
 10/17/1996 - 08/31/1999 FY00: -\$194 Total: \$65,806  
 Prin. Invest.: B MITCHELL  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 33 - OCEANOGRAPHY

**NGT 5 30122 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2726**  
 LONG-TERM VARIABILITY IN PHYTOPLANKTON GROWTH RATE S & PRIMARY PRODUCTIVITY ESSF RECIPIENT: AMY SHAN  
 10/01/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: R GOERCKE  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NGT 5 30150 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2727**  
 BIOSPHERIC INFLUENCE ON ATMOSPHERIC CO<sub>2</sub>, VIEWED FROM THE D180 SIGNATURE/NASAEARTH SYSTEM SCIENCE F  
 08/28/1998 - 08/31/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: M WAHLEN  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40007 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2728**  
 SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM.  
 01/24/1997 - 01/31/2001 FY00: \$460,750 Total: \$1,836,750  
 Prin. Invest.: J A ARNOLD  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50131 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2729**  
 IMPROVING SCIENTIFIC APPLICATION PERFORMANCE BY DY  
 09/10/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: F BERMAN  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50169 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2730**  
 THE FLUID FEATURE HIERARCHY: A FRAMEWORK FOR MACHINE VISION  
 10/31/1997 - 07/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: E MJOLSESS  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 50183 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2731**  
 THREE ASTROPHYSICAL GRAILS: THE ORIGINS OF DARK MATTER, GAMMA-RAY BURSTS, AND HEAVY ELEMENTS  
 05/27/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: G M FULLER  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 13 - PHYSICS

**NGT 5 50234 UNIVERSITY OF CALIFORNIA - SAN DIEGO 2732**  
 PARADIGM SHIFTS IN THE GAMMA-RAY BURST MYSTERY AND  
 COSMOLOGY: WORKING TOWARDS FIRM GROUND  
 05/27/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: G FULLER  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1086 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2733**  
 OSTEOMARS: EFFECTS OF MICROGRAVITY ON OSTEOBLAST GENE  
 EXPRESSION IN VARIABLE GRAVITY  
 10/04/1996 - 06/30/2000 FY00: \$0 Total: \$580,833  
 Prin. Invest.: M H FULFORD  
 Tech. Officer: ARC/C M WINGET, ARC/P D SAVAGE  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 6374 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2734**  
 ROLE OF INTEGRINS IN MECHANICAL LOADING OF OSTEOBLASTS  
 10/03/1997 - 06/30/1999 FY00: \$0 Total: \$149,486  
 Prin. Invest.: D GLOBUS  
 Tech. Officer: GSFC/V SCHNEIDER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 812 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2735**  
 EXPANSION AND DIFFERENTIATION OF CELLS  
 09/19/1995 - 08/31/2000 FY00: \$0 Total: \$725,000  
 Prin. Invest.: B BHATNAGAR  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1261 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2736**  
 TELOMERE REPAIR & CHROMOSOME INSTABILITY AFTER HIGH LINEAR  
 ENERGY TRANSFER PARTICLE RADIATION  
 09/25/2000 - 07/31/2002 FY00: \$48,571 Total: \$48,571  
 Prin. Invest.: J P MURNANE, B FOULADI  
 Tech. Officer: JSC/C W LLOYD  
 CASE Category: 56 - MEDICL

**NAS 9 19411 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2737**  
 CREW MEMBER & CREW GROUND INTERACTIONS DURING NASA/ MIR  
 09/22/1995 - 10/31/2000 FY00: \$0 Total: \$784,182  
 Prin. Invest.: D KANAS  
 Tech. Officer: JSC/J VILLARREAL  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAS 9 99055 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2738**  
 LIFE SCIENCE FLIGHT EXPERIMENT  
 01/29/1999 - 12/31/2002 FY00: \$85,000 Total: \$230,000  
 Prin. Invest.: T LANG  
 Tech. Officer: JSC/D BAUMANN  
 CASE Category: 56 - MEDICL

**NCC 2 993 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2739**  
 EVOLUTIONARY CELL COMPUTING  
 05/16/1997 - 06/30/2000 FY00: \$0 Total: \$158,786  
 Prin. Invest.: M A WILSON  
 Tech. Officer: ARC/M H NEW, ARC/S CHANG  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 2 1126 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2740**  
 MEMBRANCE-BASED FUNCTIONS IN THE ORIGINS OF CELLULAR LIFE  
 06/14/1999 - 10/31/2000 FY00: \$36,412 Total: \$96,492  
 Prin. Invest.: M A WILSON  
 Tech. Officer: ARC/M H NEW, ARC/M L FONDA  
 CASE Category: 12 - CHEMISTRY

**NCC 2 1194 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2741**  
 DO INTEGRINS MEDIATE THE SKELETAL RESPONSES TO ALTERED  
 LOADING IN VIVO? (SUBPROJECT A)  
 08/28/2000 - 09/30/2001 FY00: \$99,388 Total: \$99,388  
 Prin. Invest.: C H DAMSKY  
 Tech. Officer: ARC/R K GLOBUS, ARC/E M HOLTON  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5294 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2742**  
 MOLECULAR MODELING IN BIO-NANOTECHNOLOGY: COMPUTER AIDED  
 GENETIC ENGINEERING OF A PROTEIN-BASED ...  
 09/21/1998 - 09/30/2000 FY00: \$59,150 Total: \$147,817  
 Prin. Invest.: M A WILSON  
 Tech. Officer: ARC/R L JAFFE  
 CASE Category: 12 - CHEMISTRY

**NCC 2 5295 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2743**  
 TOWARDS A PHYLOGENY OF BIOLOGICAL FUNCTIONS  
 09/25/1998 - 09/30/2000 FY00: \$59,306 Total: \$175,533  
 Prin. Invest.: M A WILSON  
 Tech. Officer: ARC/M H NEW, ARC/M L FONDA  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 2 5389 UNIVERSITY OF CALIFORNIA - SAN FRANCISCO 2744**  
 RESEARCH IN COMPUTATIONAL ASTROBIOLOGY  
 07/07/2000 - 06/30/2001 FY00: \$42,856 Total: \$42,856  
 Prin. Invest.: M A WILSON  
 Tech. Officer: ARC/M H NEW, ARC/A POHORILLE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 2 1140 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2745**  
 MODELING & PREDICTION OF WILDFIRE HAZARD IN SOUTHERN  
 CALIFORNIA, INTEGRATION OF MODELS WITH.....  
 07/21/1997 - 06/30/2001 FY00: \$0 Total: \$245,000  
 Prin. Invest.: D A ROBERTS, S L USTIN, R CHURCH  
 Tech. Officer: ARC/G A SHELTON, ARC/J A BRASS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 3 1847 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2746**  
 THE SUPERFLUID TRANSITION OF HE4 UNDER UNUSUAL CONDITIONS  
 05/02/1996 - 01/01/2001 FY00: \$138,000 Total: \$791,000  
 Prin. Invest.: P AHLERS  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 1857 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2747**  
 NUMERICAL SIMULATION OF ELECTROCHEMICAL TRANSPORT PROCESS  
 IN MICROGRAVITY ENVIRONMENTS  
 05/06/1996 - 11/05/2000 FY00: \$53,000 Total: \$320,000  
 Prin. Invest.: S BAMERJEE  
 Tech. Officer: GRC/J C DUH  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2115 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2748**  
 INTERACTION FORCES AND THE FLOW-INDUCED COALESCENCE OF  
 DROPS AND BUBBLES  
 02/19/1998 - 12/31/2002 FY00: \$175,000 Total: \$450,000  
 Prin. Invest.: L G LEAL  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 3 2119 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2749**  
 POOL BOILING CIRCS FROM FLAT PLATES: MECHANISM(S) AND  
 ENHANCEMENT  
 02/26/1998 - 09/30/2001 FY00: \$100,000 Total: \$348,000  
 Prin. Invest.: T G THEOFANOUS, Y BUYEVIAH  
 Tech. Officer: GRC/J B MCQUILLEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2145 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2750**  
 THE FIRST ANNUAL MEETING OF THE INSTITUTE OF MULTI FLUID SCIENCE  
 AND TECHNOLOGY  
 03/30/1998 - 07/31/2000 FY00: \$0 Total: \$18,000  
 Prin. Invest.: T G THEOFANOUS  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2255 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2751**  
 SUPPORT FUNDING FOR FIRST INTERNATIONAL SYMPOSIUM ON TURBU-  
 LENCE AND SHEARFLOW PHENOMENA, SEPT 1999  
 04/06/1999 - 09/30/1999 FY00: \$0 Total: \$5,000  
 Prin. Invest.: S BANERJEE  
 Tech. Officer: GRC/R D GREEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2414 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2752**  
 DIRECT NUMERICAL SIMULATION OF TURBULENT FLOWS WITH PHASE  
 CHANGE IN MICROGRAVITY  
 06/02/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: P BANERJEE  
 Tech. Officer: LARC/J H AGUI  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2439 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2753**  
 GRADIENT DRIVEN FLUCTUATIONS GRADIENT DRIVEN FLUCTUATIONS  
 04/20/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D S CANNELL  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2466 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2754**  
 THE DYNAMICS OF PARTICULATE DEPOSITIONED RESUSPENSION  
 PROCESSES AT MODERATE TO HIGH REYNOLDS NUMBER  
 06/20/2000 - 11/30/2003 FY00: \$17,106 Total: \$17,106  
 Prin. Invest.: E MEIBURG  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3024 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2755**  
 TOPOGRAPHIC EVOLUTION OF VOLCANIC ISLAND  
 10/11/1995 - 01/31/1999 FY00: -\$9,286 Total: \$372,046  
 Prin. Invest.: O A CHADWICK  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3620 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2756**  
 "REMOTE SENSING INFORMATION SCIENCES RESEARCH GROUP  
 02/07/1997 - 12/14/2000 FY00: \$389,841 Total: \$2,384,434  
 Prin. Invest.: D E ESTES, NONE  
 Tech. Officer: GSFC/A J TUYOHOFV  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3646 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2757**  
 SOLAR SYSTEM PHYSICS  
 02/25/1997 - 04/30/2001 FY00: \$80,750 Total: \$250,750  
 Prin. Invest.: S J PEALE  
 Tech. Officer: GSFC/J G GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4078 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2758**  
 ADVANCED BALLOONING STUDIES AND TECHNOLOGY DEVELOP  
 04/25/1997 - 10/31/1999 FY00: \$0 Total: \$760,000  
 Prin. Invest.: P M LUBIN  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4126 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2759**  
 SPATIAL AND TEMPORAL VARIABILITY IN SEA ICE COVER ANTARCTIC  
 PENINSULA ASPART OF THE PALMER LONG TE  
 03/06/1997 - 12/31/1999 FY00: \$0 Total: \$99,400  
 Prin. Invest.: R C SMITH  
 Tech. Officer: GSFC/R H THOMAS  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 4185 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2760**  
 DEVELOPMENT OF LARGE COOLED HEMT ARRAYS FOR BALLOON OF  
 COSMIC BACKGROUND RADIATION ANISOTROPIES  
 03/24/1997 - 05/31/2000 FY00: \$0 Total: \$400,569  
 Prin. Invest.: M MEINHOLD  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4455 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2761**  
 BALLOON-BORNE OBSERVATIONS OF THE ANISOTROPY OF THE BACK-  
 GROUND ON ANGULAR SCALES OF 0.2 TO 40 DEGREES  
 06/05/1997 - 12/31/2000 FY00: \$0 Total: \$123,671  
 Prin. Invest.: D E RUHL  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4460 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2762**  
 NON-MARINE STROMATOLITES AND THE SEARCH FOR PAST LIFE  
 05/14/1997 - 06/30/2000 FY00: \$0 Total: \$70,730  
 Prin. Invest.: D M AWRAMIK  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4629 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2763**  
 PARAMETERIZATION OF CLOUD 3-D EFFECTS ON SURFACE SGET ESTI-  
 MATED FROM SATELLITE MEASUREMENTS  
 05/21/1997 - 11/30/2000 FY00: \$50,000 Total: \$380,000  
 Prin. Invest.: C GAUTHIER  
 Tech. Officer: GSFC/R CAHALAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4814 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2764**  
 HYDROLOGY, HYDROCHEMICAL MODELING AND REMOTE SENSING SNOW-  
 COVERED ALPINE DRAINAGE BASINS  
 06/19/1997 - 12/31/2000 FY00: \$0 Total: \$2,394,535  
 Prin. Invest.: J C DOZIER  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4963 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2765**  
 PROGRAM IS PART OF A LONG TERM EFFORT ICES IS DEVELOPING GRADUATE  
 STUDENTS, EARLY ON IN THEIR ACADEMIC LIFE  
 06/27/1997 - 12/31/2000 FY00: \$0 Total: \$225,000  
 Prin. Invest.: C GAUTIER  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6120 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2766**  
 THE EOS AMAZON PROJECT  
 08/13/1997 - 06/30/2001 FY00: \$207,798 Total: \$623,394  
 Prin. Invest.: T DUNNE  
 Tech. Officer: GSFC/T JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6226 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2767**  
 JERS AMAZON MULTI-SEASON MAPPING STUDY (JAMMS)  
 09/11/1997 - 05/31/2000 FY00: \$0 Total: \$176,485  
 Prin. Invest.: J MELACK  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6259 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2768**  
 ACCURACY ASSESSMENT OF THE IGBP FAST-TRACK 1 KM LA METH-  
 ODOLOGICAL DEVELOPMENT, EXECUTION, AND LESSON  
 08/19/1997 - 07/31/1999 FY00: \$0 Total: \$330,000  
 Prin. Invest.: J ESTES  
 Tech. Officer: GSFC/A C JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6288 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2769**  
 DEVELOPMENT AND APPLICATION OF THE NEXT GENERATION FOR THE  
 UNDERSTANDING OF MARINE PROCESSES ON REGIONS  
 09/10/1997 - 08/31/2001 FY00: \$78,452 Total: \$579,515  
 Prin. Invest.: D SIEGEL  
 Tech. Officer: GSFC/J YODER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6434 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2770**  
 BIO-OPTICS IN THE WESTERN ANTARCTIC PENINSULA REGION  
 10/16/1997 - 06/30/2001 FY00: \$100,000 Total: \$492,438  
 Prin. Invest.: R SMITH  
 Tech. Officer: GSFC/J YODER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6465 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2771**  
 INVESTIGATION OF SNOW PROPERTIES USING MODIS AND ASTER DATA  
 10/24/1997 - 09/30/2001 FY00: \$49,999 Total: \$310,053  
 Prin. Invest.: J SHI  
 Tech. Officer: GSFC/D STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6478 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2772**  
 INFRASTRUCTURE FOR TRAINING AND PARTNERSHIPS-CALIFORNIA  
 WATER AND COASTAL OCEAN RESOURCES  
 11/18/1997 - 09/30/1999 FY00: \$0 Total: \$395,480  
 Prin. Invest.: D SIEGEL  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6911 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2773**  
 A REQUEST FOR SCIENCE READINESS FUNDS FOR THE OPTICAL  
 MONITOR PROGRAM OF THE X-RAY MULTI-MIRROR MISS  
 01/28/1998 - 10/31/2000 FY00: \$0 Total: \$201,479  
 Prin. Invest.: D CORDOVA  
 Tech. Officer: GSFC/R DONNELLY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7048 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2774**  
 A STUDY OF THE EUV/X-RAY CORRELATION IN NGC 4151 WITH EUVE AND  
 XTE  
 02/19/1998 - 09/30/1999 FY00: -\$138 Total: \$11,702  
 Prin. Invest.: O M BLAES  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7075 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2775**  
 DETAILED THEORETICAL MODELING OF THE SPECTRUM AND POLARIZA-  
 TION OF ACCRETION DISKS IN ACTIVE GALAXIES  
 02/25/1998 - 02/28/2001 FY00: \$77,244 Total: \$223,024  
 Prin. Invest.: O M BLAES  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7125 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2776**  
 XTE PROPOSAL - THE NATURE OF THE BROAD-BAND CONTINUUM OF  
 NGC 5548 FROM EUVE, ASCA, AND XTE  
 04/24/1998 - 10/31/1999 FY00: -\$26 Total: \$9,662  
 Prin. Invest.: O M BLAES  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7177 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2777**  
 PROBABILITY OF DETECTING PLANETS WITH MICROLENSING  
 03/16/1998 - 03/14/2001 FY00: \$27,000 Total: \$88,100  
 Prin. Invest.: S J PEALE  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7248 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2778**  
 SIMPLE AND MULTIPLE MEMBER SPECTRAL MIXTURE ANALYSIS IN  
 THE BOREAL FOREST  
 04/24/1998 - 06/30/2000 FY00: \$0 Total: \$40,000  
 Prin. Invest.: D A ROBERTS  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7273 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2779**  
 XTE PROPOSAL - THE VELA PULSAR: ARE X-RAY & RADIO PULSE  
 PROPERTIES CORRELATED?  
 04/24/1998 - 04/30/1999 FY00: \$0 Total: \$1,000  
 Prin. Invest.: C GWINN  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7714 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2780**  
 POSTLAUNCH: STATEMENT OF WORK U.S. OPTICAL MONITOR TEAM  
 10/05/1998 - 09/30/2000 FY00: \$448,985 Total: \$560,267  
 Prin. Invest.: D A CORDOVA  
 Tech. Officer: GSFC/N E WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7940 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2781**  
 OUTREACH PROJECT  
 01/19/1999 - 09/30/2000 FY00: \$124,231 Total: \$125,231  
 Prin. Invest.: D FOSTER  
 Tech. Officer: GSFC/N E WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7981 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2782**  
 ATMOSPHERIC EXCITATION OF PLANETARY NORMAL MODES  
 01/13/1999 - 12/31/2000 FY00: \$33,250 Total: \$68,250  
 Prin. Invest.: D TANIMOTO  
 Tech. Officer: GSFC/J A GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8319 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2783**  
 PLUMES AND BLOOMS: MODELING THE CASE II WATERS OF THE SANTA BARBARA CHANNEL  
 04/01/1999 - 03/31/2001 FY00: \$0 Total: \$180,000  
 Prin. Invest.: D A SIEGEL  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8396 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2784**  
 MESOSCALE EFFECTS OF CLIMATE AND LAND-COVER CHANGE ON RIVER-BASIN HYDROLOGY IN AMAZONIA  
 04/01/1999 - 03/31/2001 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: T DUNNE  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8542 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2785**  
 GAZETTEER IMPLEMENTATION FOR INDIRECT SPATIAL REFERENCING  
 05/20/1999 - 08/31/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: L L HILL  
 Tech. Officer: GSFC/K MOE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 8616 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2786**  
 EVALUATING USAGE OF SAR IN MEASURING SNOW PROPERTIES  
 06/14/1999 - 06/30/2001 FY00: \$117,370 Total: \$191,070  
 Prin. Invest.: J SHI  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8658 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2787**  
 ROTATIONAL INSTABILITIES AND NUCLEOSYNTHESIS IN ACCRETING NEUTRON STARS  
 08/31/1999 - 06/30/2001 FY00: \$37,680 Total: \$77,680  
 Prin. Invest.: L BILDSTEN  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8669 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2788**  
 NANOSCALE BOLOMETERS AND EVAPORATIVE ELECTRONIC REFRIGERATION  
 07/09/1999 - 07/14/2001 FY00: \$221,475 Total: \$432,592  
 Prin. Invest.: A CLELAND  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 13 - PHYSICS

**NAG 5 8680 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2789**  
 ATMOSPHERIC MINERAL DUST AND CHLOROPHYLL BLOOMS  
 07/19/1999 - 07/14/2001 FY00: \$110,168 Total: \$231,688  
 Prin. Invest.: N M MAHOWALD  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9055 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2790**  
 APPLICATIONS AND VALIDATION OF THE SRTM DEM IN THE AMAZON: HYDROLOGICAL AND GEOMORPHOLOGICAL ANALYSIS  
 02/14/2000 - 02/28/2001 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: D E ALSDORF  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9073 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2791**  
 BALLOON BORNE MILLIMETER WAVELENGTH SKY STUDIES & TECHNOLOGY DEVELOPMENT  
 02/15/2000 - 02/14/2002 FY00: \$358,510 Total: \$358,510  
 Prin. Invest.: P LUBIN  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9251 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2792**  
 BALLOON BORNE OBSERVATIONS OF THE POLARIZATION OF THE COSMIC MICROWAVE BACKGROUND  
 03/31/2000 - 03/31/2001 FY00: \$184,310 Total: \$184,310  
 Prin. Invest.: J E RUHL  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9671 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2793**  
 THE ROLE OF NORTH AFRICAN MINERAL AEROSOLS IN CLIMATE AND BIOGEOCHEMISTRY  
 06/12/2000 - 05/31/2001 FY00: \$195,948 Total: \$195,948  
 Prin. Invest.: N M MAHOWALD  
 Tech. Officer: GSFC/P DECOLA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9811 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2794**  
 GLOBALLY CONSISTENT TOPOGRAPHIC CHARACTERIZATION OF LARGE RIVER FLOODPLAINS BASED ON THE SRT  
 07/21/2000 - 07/31/2001 FY00: \$39,997 Total: \$39,997  
 Prin. Invest.: L K MERTES  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9818 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2795**  
 DEVELOPMENT AND APPLICATION OF THE NEXT GENERATION OF OCEAN COLOR MODELS FOR THE UNDERSTANDING OF MA  
 07/26/2000 - 08/31/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D A SIEGEL  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9844 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2796**  
 HYDROLOGY, HYDROCHEMICAL MODELING & REMOTE SENSING IN  
 SEASONALLY SNOW-COVERED ALPINE DRAINAGE  
 08/07/2000 - 07/31/2001 FY00: \$750,000 Total: \$750,000  
 Prin. Invest.: J C DOZIER  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9941 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2797**  
 DISTORTIONS OF THE CMB FROM VARIOUS PROCESSES OF THE EARLY  
 UNIVERSE  
 09/08/2000 - 09/30/2001 FY00: \$40,791 Total: \$40,791  
 Prin. Invest.: P M LUBIN  
 Tech. Officer: GSFC/A J KOGUT  
 CASE Category: 13 - PHYSICS

**NAG 5 9971 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2798**  
 SPECTROSCOPY OF DIPS AND FLARES IN CIR X-1  
 09/13/2000 - 09/14/2001 FY00: \$27,000 Total: \$27,000  
 Prin. Invest.: R E SHIREY  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1429 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2799**  
 R/S BOUNDARY EFFECTS ON TRANSPORT PROPERTIES AND DYNAMIC  
 FINITE-SIZE SCALING NEAR THE SUPERFLUID  
 02/23/1998 - 01/31/2002 FY00: \$169,064 Total: \$466,621  
 Prin. Invest.: G AHLERS, V DOHM, F C LIU  
 Tech. Officer: MSFC/J POE, JPL/D STRAYER  
 CASE Category: 13 - PHYSICS

**NAGW 5241 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2800**  
 USING LANDSAT DATA TO DEVELOP AN IMAGE BASED LOGISTIC REGRES-  
 SION MODEL FOR PREDICTING DEFORESTATION  
 11/25/1996 - 07/31/1999 FY00: \$0 Total: \$205,551  
 Prin. Invest.: R C FROHN  
 Tech. Officer: HQ/A ASRAR, HQ/R C HARRISS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG13 99025 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2801**  
 IMPLEMENTATION OF PREDICTIVE SOIL MODELING IN THE NATIONAL  
 COOPERATIVE SOIL SURVEY  
 08/27/1999 - 11/01/2000 FY00: \$56,454 Total: \$113,806  
 Prin. Invest.: O CHADWICK  
 Prin. Invest.: NONE  
 Tech. Officer: JSC/R MCKELLIP  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 31370 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2802**  
 EOS INVESTIGATION  
 12/23/1991 - 12/14/2001 FY00: \$558,000 Total: \$3,762,402  
 Prin. Invest.: Z WAN  
 Tech. Officer: GSFC/H OSEROFF  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 31374 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2803**  
 EOS INVESTIGATION - ATMOSPHERIC INFRARED SOUNDER (AIRS) TEAM  
 MEMBER INVESTIGATION  
 03/04/1992 - 12/14/2001 FY00: \$185,000 Total: \$1,510,000  
 Prin. Invest.: C GAUTIER  
 Tech. Officer: GSFC/E KRIENS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 97119 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2804**  
 MANAGE DEVELOPMENT OF X-RAY MULTI-MIRROR MISSION DATA PROC-  
 ESSING UNIT  
 01/22/1997 - 06/30/2000 FY00: \$0 Total: \$906,837  
 Prin. Invest.: F A COROGVA  
 Tech. Officer: GSFC/R E DONNELL  
 CASE Category: 11 - ASTRONOMY

**NAG 5 97125 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2805**  
 BERMUDA BIOOPTICS PROGRAM FOR SIMBIOS  
 07/11/1997 - 11/30/2000 FY00: \$55,200 Total: \$922,676  
 Prin. Invest.: D A SIEGEL  
 Tech. Officer: GSFC/C MCCLAIN  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 97127 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2806**  
 BERMUDA TESTBED MOORING IN SUPPORT OF SIMBIDS  
 07/15/1997 - 10/31/2001 FY00: \$0 Total: \$519,274  
 Prin. Invest.: T D DICKEY  
 Tech. Officer: GSFC/C MCCLAIN  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 99083 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2807**  
 SPECTRAL DATA ASSIMILATION FOR MERGING SATELLITE OCEAN COLOR  
 IMAGERY  
 01/26/1999 - 10/31/1999 FY00: \$201,500 Total: \$299,610  
 Prin. Invest.: D SIEGEL  
 Tech. Officer: GSFC/C R MCCLAIN  
 CASE Category: 33 - OCEANOGRAPHY

**NCC 2 1049 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2808**  
 CHARACTERIZATION OF LIGHTWEIGHT CERAMIC ABLATOR MA TERIALS  
 07/16/1998 - 12/14/2000 FY00: \$50,000 Total: \$147,088  
 Prin. Invest.: F MILSTEIN  
 Tech. Officer: ARC/H K TRAN  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 2 5368 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2809**  
 INTRA-AND INTERSUBBAND ELECTRON-ELECTRON-PHONON SC ATTER-  
 INGS IN QUANTUM CONFINED STRUCTURES FOR ....  
 02/28/2000 - 02/28/2001 FY00: \$59,304 Total: \$59,304  
 Prin. Invest.: M W WU, NONE  
 Tech. Officer: ARC/T R GOVINDAN  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 3 551 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2810**  
 SPATIAL CROSS-CORRELATION IN BACK SCATTER  
 04/08/1997 - 03/31/1999 FY00: \$0 Total: \$49,200  
 Prin. Invest.: D S CANNELL  
 Tech. Officer: GRC/T K GLASGOW, GRC/W MEYER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 5 281 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2811**  
 MULTI-SCALE ANALYSIS OF INUNDATION WITH MICROWAVE AND OPTICAL  
 REMOTESENSING IN THE AMAZON BASIN:  
 06/16/1998 - 12/31/2000 FY00: \$190,708 Total: \$499,714  
 Prin. Invest.: J MELACK  
 Tech. Officer: GSFC/D DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 282 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2812**  
 LAND-COVER CONVERSION IN AMAZONIA, THE ROLE OF ENVIRONMENT  
 AND SUBSTRATE COMPOSITION IN MODIFYING SO  
 06/12/1998 - 12/31/2000 FY00: \$265,120 Total: \$529,716  
 Prin. Invest.: O A CHADWICK  
 Tech. Officer: GSFC/D W DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 302 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2813**  
 THE EARTH SYSTEM SCIENCE WORKBENCH: A SCALABLE INFRASTRUC-  
 TURE FOR ESIP'S  
 04/09/1998 - 02/28/2001 FY00: \$1,100,000 Total: \$2,725,000  
 Prin. Invest.: J FREW  
 Tech. Officer: GSFC/M MAIDEN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 496 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2814**  
 HYPERION APPLICATIONS & VALIDATION FOR FIRE HAZARD ASSESSMENT  
 IN THE SANTA MONICA MOUNTAINS, CALIF  
 04/19/2000 - 12/31/2000 FY00: \$34,489 Total: \$34,489  
 Prin. Invest.: D A ROBERTS  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 32317 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2815**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 08/05/1996 - 11/30/1999 FY00: -\$3,219 Total: \$62,781  
 Prin. Invest.: S BANERJEE  
 Tech. Officer: GRC/D MONTEGANI  
 CASE Category: 43 - CHEMICAL ENGR

**NGT 4 52407 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2816**  
 GSRP ANALYSIS OF ADAPTIVE CONTROL OF AEROELASTIC STRUCTURES  
 USING MULTIDISCIPLINARY STARS PROGRAMS  
 06/18/1998 - 07/31/2002 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: J C BRUCH, DR., JTARANTINO  
 Tech. Officer: SSC/K GUPTA, SSC/L S VOELKER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 4 52423 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2817**  
 DEVELOPMENT OF THE EIGENVECTOR ORIENTATION METHOD FOR  
 FLUTTER PREDICTIONS  
 06/02/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: H T YANG  
 Tech. Officer: DFRC/K K KUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 30063 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2818**  
 BIO-OPTICAL ANALYSIS OF PRIMARY PRODUCTIVITY AND G CHANGE IN  
 ANTARCTIC COASTAL WATERS  
 09/10/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: R SMITH  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30173 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2819**  
 MASS BALANCE OF SEDIMENT TRANSPORT ACROSS COASTAL MARGIN  
 FILTERS AT THE BASE OF THE TRANSVERSE RANGE  
 09/22/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: MERTES, WARRICK  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30194 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2820**  
 A TOP-DOWN APPROACH TO UNDERSTANDING & PREDICTING DIMETHYL-  
 SULFIDE VARIABILITY IN THE SARGASSO SEA  
 08/18/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: D A SIEGEL, TOOLE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30201 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2821**  
 MONITORING POPULATION AND THE EXTENT OF HUMAN SETTLEMENT IN  
 THE BRAZILIAN AMAZON WITH SYNTH  
 08/24/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: K C CLARKE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30225 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2822**  
 REGIONAL BIOGEOCHEMISTRY OF LAND USE CHANGE IN THE HUMID  
 TROPICS: DETECTION & MODELING OF THE  
 08/14/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: T DUNNE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30332 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2823**  
 INTERACTIONS OF LAND COVER CHANGE & TOPOGRAPHY IN THE HYDRO-  
 LOGIC RESPONSE OF MESOSCALE TROPIC  
 08/14/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: T DUNNE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30357 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2824**  
 THE ROLE OF TOPOGRAPHY & PROXIMITY TO BEDROCK IN DETERMINING  
 NUTRIENT SUPPLY TO A SEASONAL AMAZON  
 08/22/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: O CHADWICK  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50010 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2825**  
 ESTIMATION OF HUMAN POPULATION PARAMETERS WITH HIGH RESOLUTION  
 12/23/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D ROBERTS  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50192 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2826**  
 MEASUREMENT OF CMB ANISOTROPIES FOR DETERMINATION OF  
 COSMOLOGICAL PARAMETERS  
 06/05/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: P LUBIN  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 13 - PHYSICS

**NGT 5 50269 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2827**  
 B2K, AN EXPERIMENT TO MEASURE THE POLARIZATION OF THE CMB  
 06/22/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J RUHL, NONE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50327 UNIVERSITY OF CALIFORNIA - SANTA BARBARA 2828**  
 MAPPING WILDLAND FUELS USING COMBINED HYPERSPEC TRAL &  
 SYNTHETIC APERTURE RADAR FOR FIRE HAZARD  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D A ROBERTS  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 2 991 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2829**  
 TOOLS FOR ANALYSIS & VISUALIZATION OF LARGE TIME-VARYING CFD  
 DATA SETS  
 07/25/1995 - 07/31/1999 FY00: \$0 Total: \$300,000  
 Prin. Invest.: J WILHELMS, A. VAN GELDER  
 Tech. Officer: ARC/A VAZIRI, ARC/M G YAMASAKI  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1239 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2830**  
 ACCELERATED TIME-VARYING FLOW VISUALIZATION WITH FEATURE  
 PRESERVATION  
 07/17/1998 - 10/31/2000 FY00: \$0 Total: \$117,000  
 Prin. Invest.: A VANGELDER, J WILHELMS  
 Tech. Officer: ARC/A VAZIRI, ARC/M GERALD-YAMASAKI  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 2843 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2831**  
 RADIATION TRANSPORT AND MULTIDIMENSIONAL HYDRODYNAMICS IN  
 SUPERNOVAE  
 12/14/1994 - 09/30/1998 FY00: \$37,375 Total: \$216,000  
 Prin. Invest.: S E WOOSLEY  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2984 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2832**  
 MOUNTAIN SCALE EROSION AND THE POTENTIAL FOR EROSIONALLY  
 DRIVEN UPLIFT  
 07/07/1995 - 07/14/1999 FY00: -\$75 Total: \$100,336  
 Prin. Invest.: R S ANDERSON  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 3005 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2833**  
 ZCAPE: A COUPLED TECTONIC-GEOMORPHIC LANDSCAPE EVOLUTION  
 MODEL  
 07/14/1995 - 07/31/1999 FY00: -\$38 Total: \$126,962  
 Prin. Invest.: R ANDERSON  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3060 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2834**  
 INTERSTELLAR GAS AND DUST IN ELLIPTICAL GALAXIES  
 09/15/1995 - 04/14/1999 FY00: \$0 Total: \$177,000  
 Prin. Invest.: W G MATTHEWS  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3232 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2835**  
 THE PROPERTIES OF INTERSTELLAR DUST GRAINS IN CIRRHUS CLOUDS  
 05/08/1996 - 04/30/2000 FY00: \$0 Total: \$245,895  
 Prin. Invest.: P GUHATHAKURTA  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3501 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2836**  
 A STUDY OF DUST IN AND AROUND GALAXIES  
 11/25/1996 - 11/14/1999 FY00: -\$100,183 Total: \$141,817  
 Prin. Invest.: D F ZARITSKY  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3507 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2837**  
 ISO DEEP SURVEY  
 10/31/1996 - 11/14/2000 FY00: \$0 Total: \$40,000  
 Prin. Invest.: D C KOO  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4277 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2838**  
 FORMATION OF GIANT PLANETS  
 04/01/1997 - 12/31/1999 FY00: -\$148 Total: \$89,852  
 Prin. Invest.: D LIN  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4445 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2839**  
 PHOTON-WEIGHTED MIDPOINT EXPOSURE METER FOR KECK/H  
 RESEARCH  
 04/25/1997 - 04/30/2001 FY00: \$0 Total: \$205,494  
 Prin. Invest.: D S VOGT  
 Tech. Officer: GSFC/S HOWARD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4494 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2840**  
 FORMATION AND EARLY EVOLUTION OF SOLAR AND EXTRA-SOLAR  
 04/30/1997 - 03/31/2001 FY00: \$0 Total: \$112,776  
 Prin. Invest.: D H BODENHEIMER  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4610 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2841**  
 MAJOR UNRESOLVED PROBLEMS IN FU ORIONIS SYSTEMS  
 05/20/1997 - 05/31/2000 FY00: \$0 Total: \$150,000  
 Prin. Invest.: D H BODENHEIMER  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4665 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2842**  
 STRUCTURE AND FUNCTION OF ENCAPSULATED REPLICATING  
 06/05/1997 - 12/31/1999 FY00: \$0 Total: \$340,913  
 Prin. Invest.: D DEAMER  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4866 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2843**  
 CLUSTERS OF GALAXIES IN A NEW LIGHT: THE FIRST HIGH RESOLUTION  
 06/27/1997 - 01/31/1999 FY00: -\$49 Total: \$9,342  
 Prin. Invest.: A ZABLUDOFF  
 Tech. Officer: GSFC/R PETRE  
 CASE Category: 12 - CHEMISTRY



**NAG 5 6771 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2844**  
 THE EVOLUTION OF ISOLATED ELLIPTICAL GALAXIES  
 01/21/1998 - 02/01/1999 FY00: \$143 Total: \$16,157  
*Prin. Invest.:* A ZABLUDOFF  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7245 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2845**  
 GEOPHYSICS OF SMALL PLANETARY BODIES  
 04/15/1998 - 10/14/1999 FY00: \$0 Total: \$156,400  
*Prin. Invest.:* E ASPHAUG  
*Tech. Officer:* GSFC/P ROGERS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7515 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2846**  
 TIDALLY DRIVEN G-MODE OSCILLATION IN SOLAR-TYPE STARS BY  
 CLOSEPLANETARY COMPANIONS  
 05/29/1998 - 05/31/2001 FY00: \$40,000 Total: \$135,000  
*Prin. Invest.:* D LIN  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8128 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2847**  
 THREE DIMENSIONAL MODELS FOR GAMMA-RAY BURSTS AND SUPER-  
 NOVAE (ATP98)  
 02/05/1999 - 02/14/2001 FY00: \$87,606 Total: \$177,606  
*Prin. Invest.:* S E WOOSLEY  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8196 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2848**  
 THE GROWTH OF PROTOGIANT PLANETS IN PROTOSTELLAR DISKS  
 02/04/1999 - 01/31/2001 FY00: \$40,000 Total: \$85,000  
*Prin. Invest.:* D N LIN  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8218 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2849**  
 TESTING INFLATION AND DARK MATTER WITH NEW DATA, MODELS, AND  
 METHODS(ATP98)  
 02/08/1999 - 02/14/2001 FY00: \$231,544 Total: \$437,763  
*Prin. Invest.:* J R PRIMACK  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8348 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2850**  
 THE PROPERTIES OF INTERSTELLAR DUST GRAINS IN IRAS 'CIRRUS'  
 CLOUDS(ATP98)  
 03/01/1999 - 04/30/2001 FY00: \$54,262 Total: \$103,671  
*Prin. Invest.:* P GUHATHAKURTA  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8409 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2851**  
 EVOLUTION OF HOT GAS IN ELLIPTICAL GALAXIES (ATP 9 8)  
 03/15/1999 - 03/31/2001 FY00: \$38,622 Total: \$78,622  
*Prin. Invest.:* W G MATHEWS  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8750 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2852**  
 MONITORING ECOSYSTEM CONDITION AND STRESS IN THE SAN PABLO  
 BAY, CA REGION  
 09/08/1999 - 09/14/2001 FY00: \$99,282 Total: \$129,282  
*Prin. Invest.:* R KUDELA  
*Tech. Officer:* GSFC/J W MARRA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8855 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2853**  
 COMPOUND REMOTE SENSING FOR THE DETERMINATION OF NEW  
 PRIMARY PRODUCTION IN COASTAL WATERS  
 11/23/1999 - 11/30/2000 FY00: \$77,510 Total: \$77,510  
*Prin. Invest.:* R KUDELA  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8914 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2854**  
 SMALL BODIES AND PLANETARY COLLISIONS  
 01/27/2000 - 12/31/2000 FY00: \$108,300 Total: \$108,300  
*Prin. Invest.:* E ASPHAUG  
*Tech. Officer:* GSFC/J A GRANT  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9391 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2855**  
 WORKSTATION CLUSTER FOR SMALL BODIES AND PLANETARY COLLI-  
 SIONS  
 04/04/2000 - 04/14/2001 FY00: \$25,000 Total: \$25,000  
*Prin. Invest.:* E ASPHAUG  
*Tech. Officer:* GSFC/J A GRANT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9403 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2856**  
 STRUCTURE AND FUNCTION OF ENCAPSULATED REPLICATING SYSTEMS  
 04/06/2000 - 03/31/2001 FY00: \$110,214 Total: \$110,214  
*Prin. Invest.:* D DEAMER  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9526 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2857**  
 MULTIDIMENSIONAL MODELING OF THE SOLAR NEBULA: A BETTER TOOL  
 FOR UNDERSTANDING OBSERVATIONS  
 04/28/2000 - 05/31/2001 FY00: \$45,000 Total: \$45,000  
*Prin. Invest.:* P BODENHEIMER  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9661 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2858**  
 FORMATION AND EARLY EVOLUTION OF SOLAR AND EXTRA- SOLAR  
 GIANT PLANETS  
 06/01/2000 - 06/14/2001 FY00: \$28,000 Total: \$28,000  
*Prin. Invest.:* P BODENHEIMER  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9711 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2859**  
 OBSERVATIONS OF ROTATION POWERED PULSARS IN SUPPORT OF GLAST  
 06/15/2000 - 06/14/2001 FY00: \$13,903 Total: \$13,903  
*Prin. Invest.:* D E THORSETT  
*Tech. Officer:* GSFC/S LAMBROS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9956 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2860**  
 HOT GAS ENRICHMENT BY DRAWF GALAXIES IN THE 5044 GALAXY GROUP  
 09/13/2000 - 09/14/2001 FY00: \$16,000 Total: \$16,000  
*Prin. Invest.:* W G MATHEWS  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9966 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2861**  
 FE K-ALPHA EMISSION IN THE BRIGHT ELLIPTICAL GALAXY NGC 1399  
 09/26/2000 - 09/30/2001 FY00: \$18,000 Total: \$18,000  
*Prin. Invest.:* D BUOTE  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 534 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2862**  
 TOWARDS A SELF REPLICATING CHEMICAL SYSTEM BASED OCYTIDYLIC  
 AND GUANYLIC ACIDS  
 01/15/1988 - 07/14/1999 FY00: -\$8 Total: \$905,169  
*Prin. Invest.:* A KANAVARIOTI, C F BERNASCONI  
*Tech. Officer:* ARC/M L FONDA  
*CASE Category:* 12 - CHEMISTRY

**NCC 2 1037 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2863**  
 (NAS) AMES EDUCATION ASSOCIATES PROGRAM  
 05/08/1998 - 04/30/2001 FY00: \$953,721 Total: \$1,951,083  
*Prin. Invest.:* D L STANSBURY  
*Tech. Officer:* ARC/Q J HANSEN, ARC/S S LONGSCHAMPS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1081 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2864**  
 STAR & PLANET FORMATION  
 01/15/1999 - 02/28/2001 FY00: \$165,922 Total: \$348,873  
*Prin. Invest.:* P H BODENHEIMER  
*Tech. Officer:* ARC/D J HOLLENBACH, ARC/P CASSEN  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 5207 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2865**  
 VISUAL METHODS FOR MAODEL AND GRID VALIDATION  
 03/20/1997 - 09/30/1998 FY00: \$0 Total: \$37,457  
*Prin. Invest.:* A PANG  
*Tech. Officer:* ARC/G D YAMASKI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5241 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2866**  
 A NASA-AMES/UCSC INVESTIGATION OF CARBON ISOTOPE ABUNDANCES  
 IN ALH84001  
 09/30/1997 - 08/31/1999 FY00: \$0 Total: \$34,000  
*Prin. Invest.:* G RAU  
*Tech. Officer:* ARC/K J DES MARAIS  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 2 5254 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2867**  
 PLANETARY RING/MOON SYSTEMS  
 02/10/1998 - 08/31/2000 FY00: \$0 Total: \$99,202  
*Prin. Invest.:* P BODENHEIMER, D LIN  
*Tech. Officer:* ARC/J N CUZZI  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 5273 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2868**  
 A SEARCH FOR SUPERNOVA IN STAR-BURST GALAXIES  
 06/25/1998 - 05/31/2000 FY00: \$0 Total: \$2,880  
*Prin. Invest.:* D M RANK  
*Tech. Officer:* ARC/J D BREGMAN  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 5281 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2869**  
 COMPARATIVE VISUALIZATION OF EXPERIMENTAL WIND TUNNEL DATA &  
 COMPUTATIONAL FLUID DYNAMICS SIMULATION  
 07/23/1998 - 06/30/2001 FY00: \$59,601 Total: \$155,413  
*Prin. Invest.:* A PANG  
*Tech. Officer:* ARC/A VAZIRI, ARC/M YAMASAKI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5296 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2870**  
 THE MOLECULAR BASIS OF HYPERTHERMOPHILY  
 09/25/1998 - 11/30/1999 FY00: \$0 Total: \$59,939  
*Prin. Invest.:* J D TRENT  
*Tech. Officer:* ARC/M L FONDA  
*CASE Category:* 21 - MATHEMATICS

**NCC 2 5297 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2871**  
 DISTRIBUTION OF WATER & WATER-ROCK INTERACTION DURING  
 PLANET EVOLUTION  
 10/19/1998 - 08/31/2000 FY00: \$13,000 Total: \$40,000  
*Prin. Invest.:* N ROSENBERG  
*Tech. Officer:* ARC/J N CUZZI  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 5309 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2872**  
 FROM PREBIOTIC CHEMISTRY TO AN RNA WORLD  
 02/23/1999 - 01/31/2000 FY00: \$0 Total: \$58,060  
*Prin. Invest.:* A KANAVARIOTI  
*Tech. Officer:* ARC/A POHORILLE, ARC/M L FONDA  
*CASE Category:* 12 - CHEMISTRY

**NCC 2 5339 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2873**  
 COLLABORATIVE RESEARCH IN STABLE ISOTOPE BIOGEOCHEMISTRY  
 07/30/1999 - 07/31/2001 FY00: \$58,410 Total: \$78,410  
*Prin. Invest.:* G H RAU  
*Tech. Officer:* ARC/D J DES MARAIS, ARC/L JAHNKE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 5351 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2874**  
 SEARCH FOR THE UPPER TEMPERATURE LIMIT FOR EUKARYA - IS THERE  
 COMPLEX LIFE BEYOND EARTH?  
 09/03/1999 - 08/31/2001 FY00: \$0 Total: \$20,000  
*Prin. Invest.:* J PEARSE, J TRENT  
*Tech. Officer:* ARC/M FONDA  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 2 5358 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2875**  
 THE MOLECULAR BASIS OF HYPERTHERMOPHILY  
 10/18/1999 - 10/14/2000 FY00: \$65,540 Total: \$65,540  
*Prin. Invest.:* G MILLHAUSER, R A BOGOMOLNI, J D TRENT  
*Tech. Officer:* ARC/M FONDA  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5367 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2876**  
 NUCLEOTIDE CHEMISTRY ON PREBIOTIC EARTH  
 02/04/2000 - 01/31/2001 FY00: \$62,400 Total: \$62,400  
 Prin. Invest.: A KANAVARIOTI  
 Tech. Officer: ARC/M L FONDA  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5370 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2877**  
 COLLABORATIVE RESEARCH ON MICROBIAL MAT NITROGEN CYCLING  
 03/16/2000 - 03/14/2001 FY00: \$91,949 Total: \$91,949  
 Prin. Invest.: J P ZEHR  
 Tech. Officer: ARC/B N BEBOUT/M L FONDA  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 2 52217 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2878**  
 BIRTH OF THE SUN: MAGNETIC FIELDS IN PROTOSTELLAR ACCRETION DISKS  
 07/31/1996 - 09/30/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: P BODENHEIMER, N J TURNER  
 Tech. Officer: ARC/R M CASSEN  
 CASE Category: 11 - ASTRONOMY

**NGT 2 52230 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2879**  
 EFFECTS OF WATER IMMERSION (WEIGHTLESSNESS) ON THE REGULATION OF RENAL FUNCTION IN SEALS EXPOSED..  
 08/19/1997 - 08/31/2001 FY00: \$22,000 Total: \$88,000  
 Prin. Invest.: C L ORTIZ, NONE  
 Tech. Officer: ARC/C E WADE, ARC/B J CORBIN  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 2 52260 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2880**  
 VIOLENT VAGABONDS: THE EFFECT OF LARGE IMPACTS & MIGRATION ON GIANT PLANET EVOLUTION  
 10/26/1999 - 10/14/2000 FY00: \$44,000 Total: \$44,000  
 Prin. Invest.: P H  
 Tech. Officer: ARC/K J ZAHNLE  
 CASE Category: 11 - ASTRONOMY

**NGT 5 43 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2881**  
 MULTIWAVELENGTH STUDY OF THE EVOLUTION OF GALAXIES  
 06/23/1997 - 06/30/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: P GUHATHAKURTA  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 11 - ASTRONOMY

**NGT 5 108 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2882**  
 MULTI-WAVELENGTH STUDY OF GRBS USING BATSE, HETE II & MILAGRO (STUDENT: MIGUEL MORALES)  
 06/12/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D A WILLIAMS  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 13 - PHYSICS

**NGT 5 30074 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2883**  
 THE EVOLUTION OF STREAM CHANNELS IN A PROGRESSIVE N: THE FINIS-TERRE RANGE, PAUA NEW GUINEA  
 09/09/1997 - 02/28/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D SILVER  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30112 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2884**  
 EROSION AND SEDIMENT FLUXES BY VALLEY GLACIERS THROUGH THE CLIMATE CYCLE: LINKS BETWEEN ALPINE  
 08/28/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: R S ANDERSON  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 90077 UNIVERSITY OF CALIFORNIA - SANTA CRUZ 2885**  
 GRPS: PHYSICAL MECHANISMS FOR LONG-TERM CLIMATE VA  
 09/08/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: G VALLIS  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9570 UNIVERSITY OF REDLANDS 2886**  
 TECHNOLOGY INFRASTRUCTURE FOR TEACHING, RESEARCH, AND INFORMATION SHARING  
 05/15/2000 - 04/30/2001 FY00: \$3,228,000 Total: \$3,228,000  
 Prin. Invest.: P DOOLITTLE  
 Tech. Officer: HQ/M PHELPS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 308 UNIVERSITY OF SAN DIEGO 2887**  
 CREATIVE & INNOVATIVE WORKING PHOTOTYPE EARTH SCIENCE INFOR. PARTNERSHIP IN SUPPORT OF EARTH  
 01/15/1998 - 02/14/2001 FY00: \$425,000 Total: \$1,125,000  
 Prin. Invest.: J J SIMPSON  
 Tech. Officer: GSFC/M MAIDEN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 893 UNIVERSITY OF SAN FRANCISCO 2888**  
 ENVIRONMENTAL RADIATION MEASUREMENTS ON THE MIR SP ACE STATION  
 03/27/1995 - 08/31/2000 FY00: \$0 Total: \$601,588  
 Prin. Invest.: E V BENTON, A L FRANK, R P KEEGAN  
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 1 1996 UNIVERSITY OF SOUTHERN CALIFORNIA 2889**  
 TURBULENCE EFFECTS ON VERY LARGE FLIGHT VEHICLES.  
 01/23/1998 - 01/31/2001 FY00: \$94,000 Total: \$226,000  
 Prin. Invest.: P B LISSAMAN  
 Tech. Officer: LARC/J R CURZ  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 864 UNIVERSITY OF SOUTHERN CALIFORNIA 2890**  
 COORDINATION OF EVOLVING CONVENTIONS ENABLING SHARING OF KNOWLEDGE  
 08/06/1993 - 02/29/2000 FY00: \$0 Total: \$1,481,516  
 Prin. Invest.: H CHALUPSKY  
 Tech. Officer: ARC/P E FRIEDLAND  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1256 UNIVERSITY OF SOUTHERN CALIFORNIA 2891**  
 LEARNING & ADAPTATION IN DEXTEROUS ROBOTS  
 09/04/1998 - 10/31/1998 FY00: -\$27,900 Total: \$3,100  
 Prin. Invest.: S SCHAAL  
 Tech. Officer: ARC/C C JORGENSEN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1264 UNIVERSITY OF SOUTHERN CALIFORNIA 2892**  
 NEUROTECHNOLOGY-BASED MULTI-AGENT/ROBOT RESEARCH  
 09/16/1998 - 08/31/1999 FY00: \$0 Total: \$18,835  
*Prin. Invest.:* M MATARIC  
*Tech. Officer:* ARC/M H SIMS, ARC/J A SCHREINER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 3 1842 UNIVERSITY OF SOUTHERN CALIFORNIA 2893**  
 GROUND BASED STUDIES OF INTERNAL FLOWS IN LEVIATED LASER - HEATED DROPS  
 05/03/1996 - 10/31/2000 FY00: \$189,999 Total: \$554,999  
*Prin. Invest.:* S S SADHAL  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 1877 UNIVERSITY OF SOUTHERN CALIFORNIA 2894**  
 DETAILED STUDIES ON THE STRUCTURE AND DAYNAMICS OF REACTING DUSTING FLOWS IN NORMAL AND MICROGRAVITY  
 06/01/1996 - 01/01/2001 FY00: \$56,032 Total: \$393,615  
*Prin. Invest.:* P N EGOLFOPOULOS, P S CAMPBELL  
*Tech. Officer:* GRC/D D ROSS, GRC/M A SOCKSTEILER  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2124 UNIVERSITY OF SOUTHERN CALIFORNIA 2895**  
 STRUCTURE OF FLAME BALLS IN LOW LEWIS NUMBER STRUCTURE OF FLAME BALLS IN LOW LEWIS NUMBER  
 02/10/1998 - 01/07/2001 FY00: \$218,000 Total: \$629,100  
*Prin. Invest.:* P D RONNEY  
*Tech. Officer:* GRC/K J WEILAND  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2125 UNIVERSITY OF SOUTHERN CALIFORNIA 2896**  
 THE DYNAMICS OF MISCIBLE INTERFACES: A SPACE FLIGHT EXPERIMENT  
 02/25/1998 - 12/31/2002 FY00: \$174,999 Total: \$447,999  
*Prin. Invest.:* T MAXWORTHY, E H MEIBURG  
*Tech. Officer:* GRC/B SIGH  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2478 UNIVERSITY OF SOUTHERN CALIFORNIA 2897**  
 THE DYNAMICS OF PARTICULATE DEPOSITION AND RESUSPENSION PROCESSES AT MODERATE TO HIGH REYNOLDS NUMBER  
 08/09/2000 - 11/30/2003 FY00: \$32,911 Total: \$32,911  
*Prin. Invest.:* D MAXWORTHY  
*Tech. Officer:* GRC/F P CHARIAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 2313 UNIVERSITY OF SOUTHERN CALIFORNIA 2898**  
 LONG-TERM FUV FLUX AND WIND VARIABILITY IN BE STARS AND MULTI-WAVELENGTH OBS. AT EQUATOR-ON . . . .  
 07/12/1993 - 07/14/2000 FY00: \$0 Total: \$24,330  
*Prin. Invest.:* G J PETERS  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3429 UNIVERSITY OF SOUTHERN CALIFORNIA 2899**  
 THE ABUNDANCES OF THE IRON GROUP ELEMENTS IN EARLY B STARS  
 10/21/1996 - 10/31/2000 FY00: \$0 Total: \$65,300  
*Prin. Invest.:* G J PETERS  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4488 UNIVERSITY OF SOUTHERN CALIFORNIA 2900**  
 EUVE OBSERVATIONS OF ACTIVE B STARS  
 06/04/1997 - 05/31/2000 FY00: \$0 Total: \$17,366  
*Prin. Invest.:* G J PETERS  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4591 UNIVERSITY OF SOUTHERN CALIFORNIA 2901**  
 OUTER PLANETS UPPER ATMOSPHERE/MAGNETOSPHERE RESEARCH  
 05/09/1997 - 12/31/1999 FY00: \$0 Total: \$180,000  
*Prin. Invest.:* P E SHEMANSKY  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 5018 UNIVERSITY OF SOUTHERN CALIFORNIA 2902**  
 ROCKET UNDERFLIGHTS FOR SOHO CROSS-CALIBRATION AND SOLAR ATMOSPHERE INVESTIGATIONS  
 02/28/1994 - 02/28/2001 FY00: \$188,400 Total: \$1,669,385  
*Prin. Invest.:* D J JUDGE  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 6360 UNIVERSITY OF SOUTHERN CALIFORNIA 2903**  
 OCEAN COLOR ALGORITHMS FOR PHOTOSYNTHETIC RATE AND BIO-OPTICAL COMPONENT  
 10/24/1997 - 09/14/2000 FY00: \$123,002 Total: \$508,091  
*Prin. Invest.:* D A KIEFER  
*Tech. Officer:* GSFC/J A YODER  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 5 6512 UNIVERSITY OF SOUTHERN CALIFORNIA 2904**  
 OPTICAL AND ANCILLARY MEASUREMENTS AT HIGH LATITUDES IN SUPPORT OF THE MODIS OCEAN VALIDATION PROGRAM  
 12/05/1997 - 09/30/2001 FY00: \$98,311 Total: \$248,018  
*Prin. Invest.:* M STRAMSKA  
*Tech. Officer:* GSFC/D O STARR  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6696 UNIVERSITY OF SOUTHERN CALIFORNIA 2905**  
 AN INVESTIGATION OF THE HIGH TEMPERATURE CIRCUMSTELLAR PLASMA IN ALGOL-TYPE INTERACTING BINARIES  
 12/17/1997 - 12/31/2000 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* G J PETERS  
*Tech. Officer:* GSFC/R POLIDAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6940 UNIVERSITY OF SOUTHERN CALIFORNIA 2906**  
 ION REACTION PROPERTIES IN THE OUTER PLANETS AND COMETS  
 01/30/1998 - 12/31/1998 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* D SHEMANSKY  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6966 UNIVERSITY OF SOUTHERN CALIFORNIA 2907**  
 PHYSICAL PROCESSES AT THE HELIOSPHERIC BOUNDARY AND THEIR DETECTABLE SIGNATURES AT 1 AU. A THEORETICAL STUDY  
 03/05/1998 - 02/28/2001 FY00: \$28,300 Total: \$68,300  
*Prin. Invest.:* M A GRUNTMAN  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7117 UNIVERSITY OF SOUTHERN CALIFORNIA 2908**  
 EUV OBSERVATIONS OF EARLY B STARS: EUV FLUX VARIABILITY IN BETA  
 CMA THROUGHTOUT ITS BEAT PERIOD  
 04/13/1998 - 04/14/2001 FY00: \$0 Total: \$11,520  
*Prin. Invest.:* G J PETERS  
*Tech. Officer:* GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7147 UNIVERSITY OF SOUTHERN CALIFORNIA 2909**  
 MINIATURIZED OPTICS FREE EUV ARRAY SPECTROMETER TO PROVIDE  
 STABLE SOLAR EUV SPECTRA  
 03/23/1998 - 04/14/2001 FY00: \$58,227 Total: \$228,255  
*Prin. Invest.:* D L JUDGE  
*Tech. Officer:* GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7222 UNIVERSITY OF SOUTHERN CALIFORNIA 2910**  
 CROSS-CORRELATION ANALYSIS OF UV PROFILE VARIATIONS AND  
 NONRADIAL PULSATIONS IN B STARS  
 04/10/1998 - 04/14/2000 FY00: \$0 Total: \$22,400  
*Prin. Invest.:* G PETERS  
*Tech. Officer:* GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7369 UNIVERSITY OF SOUTHERN CALIFORNIA 2911**  
 ANALYSIS OF SOLAR EUV AND SOFT X-RAY EMISSION VARIATION  
 OBSERVED FROM THE CELIAS/SEM ABOARD SOHO  
 05/06/1998 - 10/31/1999 FY00: \$0 Total: \$47,207  
*Prin. Invest.:* H S OGAWA  
*Tech. Officer:* GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7816 UNIVERSITY OF SOUTHERN CALIFORNIA 2912**  
 APPLICATIONS OF THE FILTER DIAGONALIZATION SPECTRAL ESTIMATOR  
 IN HELIOSEISMOLOGY  
 12/14/1998 - 06/14/2000 FY00: \$0 Total: \$49,706  
*Prin. Invest.:* W DAPPEN  
*Tech. Officer:* GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7902 UNIVERSITY OF SOUTHERN CALIFORNIA 2913**  
 EQUATION OF STATE STUDIES USING SOHO DATA  
 12/10/1998 - 12/31/2000 FY00: \$0 Total: \$45,728  
*Prin. Invest.:* W DAPPEN  
*Tech. Officer:* GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8021 UNIVERSITY OF SOUTHERN CALIFORNIA 2914**  
 STUDIES OF SOLAR INTERNAL STRUCTURE AND DYNAMICS USING HIGH  
 DEGREE-P-MODE OBSERVATIONS FROM THE  
 01/22/1999 - 03/31/2001 FY00: \$68,000 Total: \$131,000  
*Prin. Invest.:* E J RHODES  
*Tech. Officer:* GSFC/J GURMAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8274 UNIVERSITY OF SOUTHERN CALIFORNIA 2915**  
 PHOTON ABSORPTION STUDIES OF ATMOSPHERIC GASES UNDER  
 IN-SITU CONDITIONS  
 04/06/1999 - 09/30/2000 FY00: \$49,455 Total: \$99,455  
*Prin. Invest.:* D JUDGE  
*Tech. Officer:* GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8309 UNIVERSITY OF SOUTHERN CALIFORNIA 2916**  
 REMOTE OPTICAL MEASUREMENTS OF NEAR-SURFACE TURBULENCE  
 FOR THE OCEAN-AIRGAS EXCHANGE: A THEORETICAL  
 03/08/1999 - 04/30/2000 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* D BOGUCKI  
*Tech. Officer:* GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8367 UNIVERSITY OF SOUTHERN CALIFORNIA 2917**  
 THE ABUNDANCES OF THE IRON GROUP ELEMENTS IN EARLY B STARS  
 (ADP98)  
 03/01/1999 - 02/28/2001 FY00: \$0 Total: \$38,889  
*Prin. Invest.:* G PETERS, NONE  
*Tech. Officer:* GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8445 UNIVERSITY OF SOUTHERN CALIFORNIA 2918**  
 REMOTE SENSING DETECTION AND ANALYSIS OF STORMWATER PLUMES  
 IN SANTAMONICA BAY, CALIFORNIA  
 04/07/1999 - 03/31/2000 FY00: \$0 Total: \$101,031  
*Prin. Invest.:* B H JONES  
*Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8545 UNIVERSITY OF SOUTHERN CALIFORNIA 2919**  
 STUDIES OF TEMPORAL CHANGES IN SOLAR INTERNAL STRUCTURE &  
 DYNAMICS USING OBSERVATIONS OF INTERM  
 05/13/1999 - 04/30/2001 FY00: \$162,561 Total: \$255,243  
*Prin. Invest.:* E J RHODES  
*Tech. Officer:* GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8884 UNIVERSITY OF SOUTHERN CALIFORNIA 2920**  
 MODELING N<sub>2</sub> AND CO<sub>2</sub> FIXATION BY THE OCEAN DIAZOTROPHIC CYANO-  
 BACTERIUM, TRICHODESMIUM  
 11/24/1999 - 09/30/2001 FY00: \$59,027 Total: \$59,027  
*Prin. Invest.:* D CAPONE  
*Tech. Officer:* GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8939 UNIVERSITY OF SOUTHERN CALIFORNIA 2921**  
 OUTER PLANET UPPER ATMOSPHERE/MAGNETOSPHERE RESEARCH  
 01/14/2000 - 01/14/2001 FY00: \$70,650 Total: \$70,650  
*Prin. Invest.:* D SHEMANSKY  
*Tech. Officer:* GSFC/D BOGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8978 UNIVERSITY OF SOUTHERN CALIFORNIA 2922**  
 OBSERVATION OF THE ACCRETION-DRIVEN BIPOLAR FLOWS IN THE  
 INTERACTING BINARIES TT HYA & V356 SGR FUSE  
 01/24/2000 - 01/31/2001 FY00: \$29,000 Total: \$29,000  
*Prin. Invest.:* G J PETERS  
*Tech. Officer:* GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9124 UNIVERSITY OF SOUTHERN CALIFORNIA 2923**  
 CIRCUMSTELLAR MATERIAL & STELLAR COMPONENTS IN HR 2142, A  
 MASSIVE INTERACTING BINARY IN A LATE EVOLU  
 03/07/2000 - 03/14/2001 FY00: \$29,378 Total: \$29,378  
*Prin. Invest.:* G PETERS  
*Tech. Officer:* GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9740 UNIVERSITY OF SOUTHERN CALIFORNIA 2924**  
 VALIDATION OF THE SEMI-DIURNAL TIDAL FLUCTUATIONS IN THE  
 COMPUTATIONS OF WATER LEAVING RADIANCE FROM  
 08/31/2000 - 08/31/2001 FY00: \$27,125 Total: \$27,125  
*Prin. Invest.:* R ITURRIAGA  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1240 UNIVERSITY OF SOUTHERN CALIFORNIA 2925**  
 NUMERICAL & LABORATORY EXPERIMENTS ON INTERACTIVE DYNAMICS  
 OF CONVECTION & DIRECTIONAL SOLIDIFICATION  
 04/15/1996 - 04/30/2001 FY00: \$124,999 Total: \$499,997  
*Prin. Invest.:* T MAXWORTHY, E MEIBURG  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1663 UNIVERSITY OF SOUTHERN CALIFORNIA 2926**  
 NON-INTRUSIVE MEASUREMENT OF THERMOPHYSICAL PROPERTIES OF  
 LIQUIDS BY ELECTROSTATIC LEVITATION  
 06/16/2000 - 11/30/2003 FY00: \$215,000 Total: \$215,000  
*Prin. Invest.:* S SADHAL  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1701 UNIVERSITY OF SOUTHERN CALIFORNIA 2927**  
 EXTINCTION AND INSTABILITY MECHANISMS OF POLYMERIZATION  
 FRONTS  
 07/19/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* P RONNEY, NONE  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1165 UNIVERSITY OF SOUTHERN CALIFORNIA 2928**  
 AUGMENTED REALITY FOR SPACE FLIGHT  
 12/07/1999 - 12/09/2002 FY00: \$205,034 Total: \$205,034  
*Prin. Invest.:* U NEWMANN  
*Tech. Officer:* JSC/B WOOLFORD  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAS 5 99232 UNIVERSITY OF SOUTHERN CALIFORNIA 2929**  
 SENSOR INTERCOMPARISON & MERGER FOR BIOLOGICAL & INTERDIS-  
 CIPINARY STUDIES.  
 08/31/1999 - 08/30/2000 FY00: \$110,700 Total: \$110,700  
*Prin. Invest.:* D G CAPONE  
*Tech. Officer:* GSFC/C MCCLAIN  
*CASE Category:* 33 - OCEANOGRAPHY

**NAS 8 97115 UNIVERSITY OF SOUTHERN CALIFORNIA 2930**  
 USC RTTC  
 01/30/1997 - 10/31/2000 FY00: \$1,427,088 Total: \$5,166,089  
*Prin. Invest.:* G BEKEY  
*Tech. Officer:* ARC/C CASTELLANO  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NCC 1 276 UNIVERSITY OF SOUTHERN CALIFORNIA 2931**  
 EXPERIMENTAL INVESTIGATION OF BOUNDARY LAYER INGESTION  
 03/18/1998 - 12/31/1998 FY00: \$0 Total: \$87,144  
*Prin. Invest.:* R F BLACKWELDER, P S LISSAMAN  
*Tech. Officer:* LARC/B L BERRIER, LARC/C A HUNTER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 3 501 UNIVERSITY OF SOUTHERN CALIFORNIA 2932**  
 THE HIGH-LEWIS NUMBER DIFFUSIVE-THERMAL INSTABILITY IN  
 PREMIXED GAS COMBUSTION & LOW TEMPERATURE HY  
 09/05/1996 - 03/31/2001 FY00: \$121,849 Total: \$459,407  
*Prin. Invest.:* H G PEARLMAN  
*Tech. Officer:* GRC/D W GRIFFIN  
*CASE Category:* 46 - MECHANICAL ENGR

**NCC 3 671 UNIVERSITY OF SOUTHERN CALIFORNIA 2933**  
 TRANSPORT AND CHEMICAL EFFECTS ON CONCURRENT AND O PPOSED-  
 FLOW FLAME SPREAD AT MICROGRAVITY  
 02/12/1999 - 01/03/2003 FY00: \$165,000 Total: \$285,000  
*Prin. Invest.:* P D RONNEY  
*Tech. Officer:* GRC/S A GOKOGLU  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 3 678 UNIVERSITY OF SOUTHERN CALIFORNIA 2934**  
 QUANTITATIVE STUDIES ON THE PROPAGATION AND EXTINCTION OF  
 NEAR-LIMIT FLAMES UNDER NORMAL AND MICROG  
 03/01/1999 - 11/29/2002 FY00: \$100,000 Total: \$205,000  
*Prin. Invest.:* F N EGOLFOPOLUOS  
*Tech. Officer:* GRC/K R SACKSTEDER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NSG 5108 UNIVERSITY OF SOUTHERN CALIFORNIA 2935**  
 ROCKET EXPERIMENTS TO MEASURE THE SOLAR SPECTRAL PROFILE &  
 INTENSITY  
 04/01/1976 - 10/31/2000 FY00: \$320,858 Total: \$3,316,267  
*Prin. Invest.:* D L JUDGE, H S OGAWA  
*Tech. Officer:* GSFC/L J EARLY, GSFC/R H PLESS  
*CASE Category:* 13 - PHYSICS

## COLORADO

**NCC 2 5337 ADAMS STATE COLLEGE 2936**  
 ENHANCEMENT OF AMPHION  
 07/23/1999 - 12/31/2000 FY00: \$0 Total: \$50,044  
*Prin. Invest.:* S ROACH  
*Tech. Officer:* ARC/M R LOWRY, ARC/S LAU  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 3 1970 COLORADO SCHOOL OF MINES 2937**  
 NMRI MEASUREMENTS & GRANULAR DYNAMICS SIMULATIONS OF  
 SEGREGATION OF GRANULAR MIXTURES  
 09/25/1996 - 10/31/1999 FY00: \$0 Total: \$478,034  
*Prin. Invest.:* M NAKAGAWA, E FUKUSHIMA  
*Tech. Officer:* GRC/B SINGH  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 5 9684 COLORADO SCHOOL OF MINES 2938**  
 LUNAR DATA ANALYSIS PROGRAM PROPOSAL: ECONOMIC EVALUATION  
 OF POLAR REGIONS USING LUNAR PROSPECT  
 06/29/2000 - 06/30/2001 FY00: \$32,000 Total: \$32,000  
*Prin. Invest.:* M B DUKE  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 9 1207 COLORADO SCHOOL OF MINES 2939**  
 EXTRACTION OF VOLATILES FROM LUNAR AND MARTIAN REGOLITHS  
 03/01/2000 - 02/28/2003 FY00: \$179,997 Total: \$179,997  
 Prin. Invest.: M B DUKE  
 Tech. Officer: JSC/D MCKAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 3 659 COLORADO SCHOOL OF MINES 2940**  
 A FUNDAMENTAL STUDY OF THE COMBUSTION SYNTHESIS OF CERAMIC-  
 METAL COMPOSITE MATERIALS UNDER MICROGRA  
 01/05/1999 - 11/11/2002 FY00: \$120,000 Total: \$240,000  
 Prin. Invest.: D J MOORE  
 Tech. Officer: GRC/S A GOKOGLU  
 CASE Category: 49 - ENGINEERING, OTHER

**NCCW 96 COLORADO SCHOOL OF MINES 2941**  
 THE CENTER FOR COMMERCIAL APPLICATIONS OF COMBUSTION IN SPACE  
 05/01/1996 - 10/31/2000 FY00: \$3,518,000 Total: \$9,036,613  
 Prin. Invest.: F SCHOWENGERDT  
 Tech. Officer: HQ/M NALL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 1 1266 COLORADO STATE UNIVERSITY 2942**  
 AN INTERDISCIPLINARY SCIENCE INVESTIGATION OF CLOUDS AND THE  
 EARTH'S RADIANT ENERGY SYSTEM-CERES  
 05/06/1991 - 10/31/1998 FY00: -\$292 Total: \$979,714  
 Prin. Invest.: D A RANDALL  
 Tech. Officer: LARC/B A WIELICKI, LARC/J W YOUNGBLOOD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2045 COLORADO STATE UNIVERSITY 2943**  
 LARGE EDDY SIMULATION OF CIRRUS CLOUDS  
 04/02/1998 - 04/30/2001 FY00: \$76,000 Total: \$142,463  
 Prin. Invest.: W COTTON  
 Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2063 COLORADO STATE UNIVERSITY 2944**  
 STUDIES OF ICE NUCLEATING AEROSOL PARTICLES IN ARCTIC CLOUD  
 SYSTEMS  
 05/19/1998 - 02/28/2001 FY00: \$73,000 Total: \$233,906  
 Prin. Invest.: D C ROGERS, J P DEMOTT  
 Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2080 COLORADO STATE UNIVERSITY 2945**  
 RADIATIVE SIGNIFICANCE OF MIDDLE AND UPPER TROPOSPHERIC  
 CLOUDS  
 06/23/1998 - 09/30/1999 FY00: -\$61 Total: \$118,197  
 Prin. Invest.: S K COX  
 Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2081 COLORADO STATE UNIVERSITY 2946**  
 INTERACTIONS OF THE CLOUDY ARCTIC BOUNDARY LAYER WITH VARI-  
 ABLE SURFACE CONDITIONS  
 06/23/1998 - 04/30/2001 FY00: \$127,001 Total: \$265,001  
 Prin. Invest.: D A RANDALL  
 Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2247 COLORADO STATE UNIVERSITY 2947**  
 RETRIEVAL OF PROPERTIES OF HIGH CLOUDS FROM LITE DATA  
 10/21/1999 - 09/30/2002 FY00: \$142,403 Total: \$142,403  
 Prin. Invest.: G STEPHENS  
 Tech. Officer: LARC/V DELNORE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 3 1801 COLORADO STATE UNIVERSITY 2948**  
 ADVANCED ELECTRIC PROPULSION RESEARCH  
 01/23/1996 - 12/09/2000 FY00: \$25,066 Total: \$160,079  
 Prin. Invest.: P J WILBUR  
 Tech. Officer: GRC/V K RAWLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 3449 COLORADO STATE UNIVERSITY 2949**  
 WATER VAPOR IN THE CLIMATE SYSTEM (RTOP # 148-65-  
 11/05/1996 - 10/31/1999 FY00: \$0 Total: \$900,000  
 Prin. Invest.: G L STEPHENS  
 Tech. Officer: GSFC/J C DODGE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 3768 COLORADO STATE UNIVERSITY 2950**  
 HZE RADIATION GENOTOXICITY IN CULTURED MAMMALIAN C  
 02/06/1997 - 08/31/1999 FY00: -\$43 Total: \$259,545  
 Prin. Invest.: C A WALDREN  
 Tech. Officer: GSFC/S SCHIMMERLING  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 4073 COLORADO STATE UNIVERSITY 2951**  
 CLIMATE SENSITIVITY OF THAW LAKE SYSTEMS ON THE AL  
 03/17/1997 - 12/31/1999 FY00: -\$10,199 Total: \$15,136  
 Prin. Invest.: D LISTON  
 Tech. Officer: GSFC/R H THOMAS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4646 COLORADO STATE UNIVERSITY 2952**  
 TITLE: USING MULTI-SENSOR DATA TO MODEL FACTORS IN GLOBAL  
 ARID & SEMIARID LANDS  
 06/17/1997 - 05/31/2001 FY00: \$472,000 Total: \$2,212,780  
 Prin. Invest.: D OJIMA  
 Tech. Officer: GSFC/G C GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4749 COLORADO STATE UNIVERSITY 2953**  
 ANALYSIS OF THE DIURNAL CYCLE OF PRECIPITATION AND RADIATIVE  
 FORCING USING TRMM PRODUCTS  
 06/26/1997 - 06/30/2000 FY00: \$0 Total: \$357,534  
 Prin. Invest.: D RANDALL  
 Tech. Officer: GSFC/O THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4754 COLORADO STATE UNIVERSITY 2954**  
 VALIDATION STUDIES AND ALGORITHM REFINEMENT IN SUP  
 06/17/1997 - 05/31/2000 FY00: \$64,939 Total: \$531,969  
 Prin. Invest.: S A RUTLEDGE  
 Tech. Officer: GSFC/R A ALDER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4983 COLORADO STATE UNIVERSITY 2955**  
 THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION  
 AND TERRESTRIAL ECOSYSTEMS  
 08/29/1997 - 07/31/2000 FY00: \$0 Total: \$82,500  
*Prin. Invest.:* W PARTON  
*Tech. Officer:* HQ/D WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6228 COLORADO STATE UNIVERSITY 2956**  
 VEMAP PHASE II  
 09/11/1997 - 06/30/2001 FY00: \$0 Total: \$377,912  
*Prin. Invest.:* D OJIMA  
*Tech. Officer:* GSFC/J RANSON  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6637 COLORADO STATE UNIVERSITY 2957**  
 ASSESSING THE IMPACT OF REMOTE SENSING DATA ON CLOUDINESS  
 PREDICTION IN SHORT-TERM FORECASTS  
 11/18/1997 - 04/30/2001 FY00: \$180,731 Total: \$544,049  
*Prin. Invest.:* P L STEPHENS  
*Tech. Officer:* GSFC/J C DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7558 COLORADO STATE UNIVERSITY 2958**  
 SNOW HYDROLOGY-THE PARAMETERIZATION OF SUBGRID PROCESSES  
 WITHIN A PHYSICALLY BASED SNOW ENERGY  
 07/02/1998 - 06/30/2001 FY00: \$0 Total: \$51,313  
*Prin. Invest.:* K ELDER  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7560 COLORADO STATE UNIVERSITY 2959**  
 A SNOW-EVOLUTION MODELING-SYSTEM FOR WEATHER, CLIMATE, AND  
 HYDROLOGIC APPLICATIONS  
 06/29/1998 - 06/30/2001 FY00: \$0 Total: \$320,000  
*Prin. Invest.:* G E LISTON  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7717 COLORADO STATE UNIVERSITY 2960**  
 IMPROVING TRMM GV & FC GOALS USING POLARIMETRIC RADAR ANAL-  
 YSES W/IN-SITU GROUND-BASED AND AIRCRAFT P  
 10/27/1998 - 10/31/2000 FY00: \$105,844 Total: \$205,844  
*Prin. Invest.:* V N BRINGI  
*Tech. Officer:* GSFC/O W THIELE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7719 COLORADO STATE UNIVERSITY 2961**  
 TOWARDS A MULTISENSOR APPROACH TO IMPROVE ON CURRENT TRMM  
 RETRIEVALS OF CLOUDS AND PRECIPITATION  
 10/27/1998 - 10/31/2000 FY00: \$88,601 Total: \$173,806  
*Prin. Invest.:* G L STEPHENS  
*Tech. Officer:* GSFC/O W THIELE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7783 COLORADO STATE UNIVERSITY 2962**  
 MODELED AEROSOL OPTICAL PROPERTIES FROM MEASUREMENT-  
 BASED MIXTURES OF CHEMICAL SPECIES-ASSESSING THE  
 11/03/1998 - 12/31/2001 FY00: \$0 Total: \$100,000  
*Prin. Invest.:* S M KREIDENWEIS  
*Tech. Officer:* GSFC/M MISHCHENKO  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7876 COLORADO STATE UNIVERSITY 2963**  
 TRMM PRECIPITATION RADAR AND MICROPHYSICS: INTERPRETATION  
 AND PRECIPITATION ESTIMATION  
 11/30/1998 - 11/30/2000 FY00: \$57,976 Total: \$137,976  
*Prin. Invest.:* V CHANDRASEKAR  
*Tech. Officer:* GSFC/O W THIELE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8705 COLORADO STATE UNIVERSITY 2964**  
 NET CARBON & ENERGY BALANCE OF SAVANNA ECOSYSTEMS AT EOS  
 VALIDATION SITES IN SOUTHERN AFRICA  
 07/21/1999 - 06/30/2000 FY00: \$22,159 Total: \$192,159  
*Prin. Invest.:* N HANAN  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9308 COLORADO STATE UNIVERSITY 2965**  
 FUNDING FOR THE CLOSEOUT OF "FREEZING CHARACTERISTICS OF  
 SOOT/SULFATE AEROSOLS IN RESPONSE TO NRA-  
 03/28/2000 - 03/31/2001 FY00: \$16,040 Total: \$16,040  
*Prin. Invest.:* D J DEMOTT  
*Tech. Officer:* GSFC/R LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9642 COLORADO STATE UNIVERSITY 2966**  
 ANALYSIS OF DATA FROM TRMM/LBA TO VALIDATE TRMM SATELLITE  
 ALGORITHMS & MODELS  
 06/19/2000 - 11/30/2000 FY00: \$93,673 Total: \$93,673  
*Prin. Invest.:* S A RUTLEDGE  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9647 COLORADO STATE UNIVERSITY 2967**  
 USE OF TRMM DATA TO TEST AN IMPROVED PARAMETERIZATION OF  
 STRATIFORM PRECIPITATION  
 06/20/2000 - 06/30/2001 FY00: \$75,432 Total: \$75,432  
*Prin. Invest.:* D A RANDALL  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9655 COLORADO STATE UNIVERSITY 2968**  
 TRMM PRECIPITATION RADAR AND MICROPHYSICS: INTERPRETATION  
 AND PRECIPITATION ESTIMATION  
 06/09/2000 - 11/30/2000 FY00: \$57,239 Total: \$57,239  
*Prin. Invest.:* V CHANDRASEKAR  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9665 COLORADO STATE UNIVERSITY 2969**  
 TRMM SOUNDING STUDIES  
 06/06/2000 - 06/14/2001 FY00: \$66,500 Total: \$66,500  
*Prin. Invest.:* R H JOHNSON  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 8 1511 COLORADO STATE UNIVERSITY 2970**  
 COUPLING ATMOSPHERIC, ECOLOGICAL, AND HYDROLOGIC PROCESSES IN  
 A REGIONAL CLIMATE MODEL  
 03/05/1998 - 03/01/2002 FY00: \$109,600 Total: \$348,133  
*Prin. Invest.:* R A PIELKE, G E LISTON  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE



## NASA'S UNIVERSITY PROGRAM

COLORADO

<b>NAG 8 1615</b> <b>COLORADO STATE UNIVERSITY</b> <b>2971</b> R/S PROSEDS HOLLOW CATHODE PLASMA CONTACTOR PERFORMANCE TEST 06/30/1999 - 07/31/1999                      FY00: -\$298                      Total: \$15,807 Prin. Invest.: P J WILBUR Tech. Officer: MSFC/J VAUGHN CASE Category: 46 - MECHANICAL ENGR	<b>NAS 5 99237</b> <b>COLORADO STATE UNIVERSITY</b> <b>2979</b> CLOUDSAT MISSION AS A PART OF EARTH SYSTEM SCIENCE PATHFINDER (ESSP) PROJECT. 12/17/1999 - 12/31/2000                      FY00: \$219,111                      Total: \$219,111 Prin. Invest.: G STEPHENS Tech. Officer: GSFC/D LEWIS CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 9 1057</b> <b>COLORADO STATE UNIVERSITY</b> <b>2972</b> A WATER REUSE SYSTEM FOR PIKE'S PEAK COLORADO 11/30/1998 - 11/30/1999                      FY00: -\$181                      Total: \$22,004 Prin. Invest.: T G SANDERS Tech. Officer: JSC/M B EDEEN CASE Category: 54 - ENVIRONMENTAL BIOLOGY	<b>NAS 8 97082</b> <b>COLORADO STATE UNIVERSITY</b> <b>2980</b> A STUDY OF THE ROLE OF CLOUDS IN THE RELATIONSHIP BETWEEN LAND USE/LAND COVER AND THE CLIMATE 11/21/1996 - 11/20/2000                      FY00: \$0                      Total: \$172,624 Prin. Invest.: S Q KIDDER Tech. Officer: MSFC/T MILLER CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG10 234</b> <b>COLORADO STATE UNIVERSITY</b> <b>2973</b> GRAVITY INDUCED CHANGES IN GENE EXPRESSION 09/22/1997 - 12/31/2000                      FY00: \$70,000                      Total: \$353,340 Prin. Invest.: A N REDDY Tech. Officer: KSC/W M KNOTT CASE Category: 59 - LIFE SCIENCE, OTHER	<b>NCC 2 907</b> <b>COLORADO STATE UNIVERSITY</b> <b>2981</b> A CRITICAL ANALYSIS OF EDUCATION & SCIENCE COMMUNICATION PROGRAMS IN THE SPACE LIFE SCIENCES ..... 07/17/1995 - 02/28/1999                      FY00: \$0                      Total: \$1,463,099 Prin. Invest.: G R COULTER Tech. Officer: ARC/R A GRAYMES CASE Category: 59 - LIFE SCIENCE, OTHER
<b>NAS 1 19951</b> <b>COLORADO STATE UNIVERSITY</b> <b>2974</b> SCIENCE SUPPORT TO THE LITE SCIENCE TEAM 07/20/1993 - 10/19/1999                      FY00: -\$1,977                      Total: \$235,022 Prin. Invest.: D RANDALL Tech. Officer: LARC/G L MADDREA CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NCC 2 1099</b> <b>COLORADO STATE UNIVERSITY</b> <b>2982</b> AN EXTENDED ANALYSIS OF SCIENCE OUTREACH PROGRAMS IN THE SPACE LIFE SCIENCES IMPLEMENTED NASA IN PAR 03/16/1999 - 06/30/2001                      FY00: \$845,052                      Total: \$1,409,208 Prin. Invest.: G R COULTER Tech. Officer: ARC/K C SABLAN, ARC/M M AVERNER CASE Category: 59 - LIFE SCIENCE, OTHER
<b>NAS 1 98125</b> <b>COLORADO STATE UNIVERSITY</b> <b>2975</b> CLOUDS AND THE EARTH'S ENERGY SYSTEM (CERES) SCIENTIFIC INVESTIGATION 10/28/1998 - 10/31/2000                      FY00: \$189,037                      Total: \$339,037 Prin. Invest.: D A Tech. Officer: LARC/B A WIELUCKI CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NCC 5 284</b> <b>COLORADO STATE UNIVERSITY</b> <b>2983</b> SPATIAL INTEGRATION OF REGIONAL CARBON BALANCE IN AMAZONIA 06/25/1998 - 12/31/2000                      FY00: \$311,692                      Total: \$605,865 Prin. Invest.: A DENNING Tech. Officer: GSFC/D W DEERING CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAS 1 99103</b> <b>COLORADO STATE UNIVERSITY</b> <b>2976</b> ALGORITHM AND INSTRUMENT SUPPORT ACTIVITIES FOR PICASSO-CENA 05/17/1999 - 05/16/2001                      FY00: \$55,250                      Total: \$63,250 Prin. Invest.: G L STEPHENS, C PLATT Tech. Officer: LARC/G GIBSON CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NCC 5 288</b> <b>COLORADO STATE UNIVERSITY</b> <b>2984</b> JOINT RESEARCH STUDIES ON EARTH-ATMOSPHERIC PROBLEMS 06/05/1998 - 03/31/2001                      FY00: \$462,784                      Total: \$682,434 Prin. Invest.: G L STEPHENS Tech. Officer: GSFC/A J NEGRI CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAS 3 26410</b> <b>COLORADO STATE UNIVERSITY</b> <b>2977</b> ACTS PROPAGATION EXPERIMENTS 05/19/1993 - 09/30/1999                      FY00: \$11,655                      Total: \$522,560 Prin. Invest.: V N BRINGI Tech. Officer: GRC/R J GUNDERMAN CASE Category: 41 - AERONAUTICAL ENGR	<b>NGT 5 30001</b> <b>COLORADO STATE UNIVERSITY</b> <b>2985</b> STUDIES OF HOMOGENEOUS FREEZING NUCLEATION AT THE CONDITIONS 10/23/1996 - 12/31/1999                      FY00: -\$6                      Total: \$65,994 Prin. Invest.: S KREIDENWEIS Tech. Officer: GSFC/G ASRAR CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAS 5 31730</b> <b>COLORADO STATE UNIVERSITY</b> <b>2978</b> EOS - BIOSPHERE - ATMOSPHERE INTERACTION* STUDY 10/18/1991 - 04/30/2000                      FY00: \$0                      Total: \$1,539,850 Prin. Invest.: D RANDALL Tech. Officer: GSFC/P SELLERS CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NGT 5 30024</b> <b>COLORADO STATE UNIVERSITY</b> <b>2986</b> PARTIONING OF ECOSYSTEM RESPIRATION AND VECTORS OF SIS USING D13C/D18O WITH IMPLICATIONS FOR NDVI-D 10/17/1996 - 08/31/1999                      FY00: \$0                      Total: \$66,000 Prin. Invest.: E KELLY Tech. Officer: GSFC/G ASRAR CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30174 COLORADO STATE UNIVERSITY 2987**  
 THE EFFECTS OF REMOTELY SENSED DATA ON MODELED LAN D-SUR-  
 FACE-ATMOSPHERE INTERACTIONS: CONSEQUENCES  
 10/09/1998 - 08/31/1999 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* S DENNING  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30182 COLORADO STATE UNIVERSITY 2988**  
 THE EFFECTS OF REMOTELY SENSED DATA ON MODELED LAN D-SUR-  
 FACE-ATMOSPHERE INTERACTIONS: CONSEQUENCES  
 08/13/1999 - 08/31/2000 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* A DENNING  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30218 COLORADO STATE UNIVERSITY 2989**  
 LIGHTNING & RADAR OBSERVATIONS FROM GROUND-BASED & SPACE-  
 BORNE PLATFORMS: APPLICATIONS FOR TRMM  
 08/24/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* S A RUTLEDGE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30344 COLORADO STATE UNIVERSITY 2990**  
 THE RESPONSE OF THE NORTH AMERICAN MONSOON TO BOUNDARY AND  
 REGIONAL FORCING MECHANISMS AS SIMILAR  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* R PIELKE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50007 COLORADO STATE UNIVERSITY 2991**  
 RETRIEVAL OF CIRRUS CLOUD MICROPHYSICAL & RADIATIVE SPECTRAL  
 MODIS & MAS MEASUREMENTS  
 11/16/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* G STEPHENS  
*Tech. Officer:* GSFC/A NURRIDIN  
*CASE Category:* 54 - ENVIRONMENTAL BIOLOGY

**NGT 5 50164 COLORADO STATE UNIVERSITY 2992**  
 PROPERTIES OF COMET MANTLE DUST  
 06/03/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* J NELSON  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 9 11 COLORADO STATE UNIVERSITY 2993**  
 VACUUM PROCESSING  
 07/03/1996 - 07/31/1999 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* M B STONE, J A MAGA, R W PHILLIPS  
*Tech. Officer:* JSC/D G SICKOREZ  
*CASE Category:* 55 - AGRICULTURE

**NGT 9 49 COLORADO STATE UNIVERSITY 2994**  
 EVALUATION OF GRAVITY-INDEPENDENT CONSTANT FORCE RESISTIVE  
 EXERCISE UNIT  
 06/29/2000 - 06/30/2001 FY00: \$21,986 Total: \$21,986  
*Prin. Invest.:* S P JAMES  
*Tech. Officer:* JSC/M C GREENNISEN  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 1 1864 UNIVERSITY OF COLORADO - BOULDER 2995**  
 LIGHT-WEIGHT ADVANCED AEROACOUSTIC NACELLE DEVELOPMENT  
 09/09/1996 - 09/08/1999 FY00: \$0 Total: \$247,164  
*Prin. Invest.:* S BIRINGEN  
*Tech. Officer:* LARC/T L PARROTT  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 1927 UNIVERSITY OF COLORADO - BOULDER 2996**  
 REFLECTED GPS SIGNALS: THEORY AND EXPERIMENTS MY 1/2  
 05/23/1997 - 05/31/2001 FY00: \$1 Total: \$315,001  
*Prin. Invest.:* I B BORN, P AXELRAD  
*Tech. Officer:* LARC/S J KATZBERG, LARC/M J FEREBEE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2021 UNIVERSITY OF COLORADO - BOULDER 2997**  
 THEORETICAL INVESTIGATIONS OF CLOUDS AND AEROSOLS IN THE  
 STRATOSPHERE AND UPPER TROPOSPHERE  
 03/12/1998 - 03/11/2001 FY00: \$124,000 Total: \$326,000  
*Prin. Invest.:* O B TOON  
*Prin. Invest.:* NONE  
*Tech. Officer:* LARC/G L MADDREA, LARC/L R POOLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 2047 UNIVERSITY OF COLORADO - BOULDER 2998**  
 APPLICATION OF LES TO UNDERSTANDING AND PARAMETERIZING THE  
 ARCTIC CLOUDY BOUNDARY LAYER  
 04/02/1998 - 04/30/2001 FY00: \$165,000 Total: \$463,000  
*Prin. Invest.:* J A CURRY  
*Tech. Officer:* LARC/D J MCDUGAL, LARC/J RAPER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 2068 UNIVERSITY OF COLORADO - BOULDER 2999**  
 EXPERIMENTAL AND ANALYTICAL CHARACTERIZATION OF THE  
 NONLINEAR BEHAVIOR OF MEMBRANE STRUCTURES  
 05/11/1998 - 11/10/2000 FY00: \$60,000 Total: \$305,000  
*Prin. Invest.:* M M MIKULAS, JR.  
*Tech. Officer:* LARC/M S LAKE  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 1 2165 UNIVERSITY OF COLORADO - BOULDER 3000**  
 COMPARISONS OF THREE DIMENSIONAL NUMERICAL SIMULATIONS OF  
 AMBIENT AND VOLCANIC STRATOSPHERIC  
 04/28/1999 - 05/31/2002 FY00: \$75,000 Total: \$150,000  
*Prin. Invest.:* O B TOON  
*Tech. Officer:* LARC/G L MADDREA, LARC/L R POOLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 2187 UNIVERSITY OF COLORADO - BOULDER 3001**  
 IMPACT OF DESCENDING POLAR MESOSPHERIC NOX ON STRATOSPHERIC  
 OZONE, NRA-98-OES-04  
 04/27/1999 - 01/31/2002 FY00: \$38,000 Total: \$73,000  
*Prin. Invest.:* C E RANDALL  
*Tech. Officer:* LARC/G L MADDREA, LARC/L R POOLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 2231 UNIVERSITY OF COLORADO - BOULDER 3002**  
 CIRRUS CLOUD RETRIEVAL ANALYSIS IN SUPPORT OF FIRSC SUBMILLI-  
 METER-WAVE SPECTROMETER  
 08/17/1999 - 05/31/2000 FY00: \$0 Total: \$20,000  
*Prin. Invest.:* K F EVANS  
*Tech. Officer:* LARC/I G NOLT  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 2 1056 UNIVERSITY OF COLORADO - BOULDER 3003**  
 FAR-INFRARED LINE PROFILES FROM PHOTODISSOCIATION REGIONS &  
 WARM MOLECULAR CLOUDS  
 07/01/1996 - 12/31/1998 FY00: -\$402 Total: \$59,598  
 Prin. Invest.: R T BOREIKO  
 Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE  
 CASE Category: 11 - ASTRONOMY

**NAG 2 1062 UNIVERSITY OF COLORADO - BOULDER 3004**  
 A FAR-INFRARED HETERODYNE SPECTROMETER FOR SOFIA  
 07/03/1996 - 12/31/1998 FY00: -\$85 Total: \$111,923  
 Prin. Invest.: A L BETZ  
 Tech. Officer: ARC/L QUAIFE, ARC/C B WILTSEE  
 CASE Category: 11 - ASTRONOMY

**NAG 2 1116 UNIVERSITY OF COLORADO - BOULDER 3005**  
 MODELING ATMOSPHERIC AEROSOLS PROPERTIES FOR EARTH'S RADI-  
 ATION BUDGET & CLIMATE CHANGE STUDIES  
 02/14/1997 - 01/31/1999 FY00: -\$591 Total: \$284,776  
 Prin. Invest.: I N SOKOLIK  
 Tech. Officer: ARC/E J JENSEN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1124 UNIVERSITY OF COLORADO - BOULDER 3006**  
 MEASUREMENTS OF LONG LIVED TRACE GASES FROM COMMERCIAL  
 AIRCRAFT PLATFORMS: INSTRUMENT DEVELOPMENT  
 04/08/1997 - 02/28/2001 FY00: \$104,500 Total: \$730,343  
 Prin. Invest.: L M AVALLONE  
 Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1258 UNIVERSITY OF COLORADO - BOULDER 3007**  
 CONTRAIL PERSISTENCE & AIRCRAFT EXHAUST IMPACTS ON CIRRUS  
 08/25/1998 - 09/30/2000 FY00: \$51,131 Total: \$170,254  
 Prin. Invest.: O B TOON  
 Tech. Officer: ARC/R P HIPSKIND, ARC/E P CONDON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1306 UNIVERSITY OF COLORADO - BOULDER 3008**  
 MEASUREMENTS OF CIO & CO2 FOR ACCENT  
 03/17/1999 - 02/29/2000 FY00: \$0 Total: \$25,003  
 Prin. Invest.: D W TOOHEY  
 Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1307 UNIVERSITY OF COLORADO - BOULDER 3009**  
 IN SITU MEASUREMENTS OF HALOGEN OXIDES FROM THE DC-8 FOR  
 SOLVE  
 03/19/1999 - 03/31/2001 FY00: \$59,057 Total: \$174,603  
 Prin. Invest.: D W TOOHEY  
 Tech. Officer: ARC/E P CONDON, ARC/S R HIPSKIND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1315 UNIVERSITY OF COLORADO - BOULDER 3010**  
 THEORETICAL STUDIES OF STRATOSPHERIC CLOUDS & AEROSOLS IN  
 SUPPORT OF SOLVE  
 04/01/1999 - 03/31/2001 FY00: \$41,000 Total: \$60,400  
 Prin. Invest.: O B TOON  
 Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1445 UNIVERSITY OF COLORADO - BOULDER 3011**  
 APPLICATION OF AEROSONDE, CLUSTERS TO EVALUATING THE MESO-  
 SCALE VARIABILITY IN TROPICAL STORMS  
 09/28/2000 - 12/31/2000 FY00: \$90,000 Total: \$90,000  
 Prin. Invest.: P J WEBSTER  
 Tech. Officer: ARC/S S WEGENER, ARC/R S HIPSKIND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 3 1616 UNIVERSITY OF COLORADO - BOULDER 3012**  
 THREE DIMENSIONAL FLOW OF MICROGRAVITY DIFFUSION FLAME  
 06/16/1994 - 01/31/1999 FY00: -\$2 Total: \$439,928  
 Prin. Invest.: J R HERTZBERG  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1846 UNIVERSITY OF COLORADO - BOULDER 3013**  
 STRUCTURE HYDRODYNAMICS AND PHASE TRANSITIONS OF FREELY  
 SUSPENDED LIQUID CRYSTALS  
 05/02/1996 - 05/01/2000 FY00: \$43,000 Total: \$435,000  
 Prin. Invest.: N A CLARK  
 Tech. Officer: GRC/J S LING, GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 1848 UNIVERSITY OF COLORADO - BOULDER 3014**  
 WAVES IN RADIAL GRAVITY USING MAGNETIC FLUID  
 06/25/1996 - 06/24/2001 FY00: \$35,000 Total: \$340,000  
 Prin. Invest.: D R OHLSEN, J E HART, P D WEIDMAN  
 Tech. Officer: GRC/N R HALL  
 CASE Category: 11 - ASTRONOMY

**NAG 3 1850 UNIVERSITY OF COLORADO - BOULDER 3015**  
 CELL AND PARTICLE INTERACTIONS AND AGGREGATION DURING ELECTRO-  
 PHORETIC MOTION  
 05/02/1996 - 08/31/2000 FY00: \$25,000 Total: \$300,000  
 Prin. Invest.: R H DAVIS  
 Tech. Officer: GRC/J S LING, GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 2116 UNIVERSITY OF COLORADO - BOULDER 3016**  
 THERMOCAPILLARY-INDUCED PHASE SEPARATION OF DISPERSED  
 SYSTEMS WITH COALESCENCE  
 01/28/1998 - 12/31/2001 FY00: \$75,000 Total: \$210,000  
 Prin. Invest.: R H DAVIS  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 3 2136 UNIVERSITY OF COLORADO - BOULDER 3017**  
 DUSTY PLASMA DYNAMICS NEAR SURFACES IN SPACE. DUSTY PLASMA  
 DYNAMICS NEAR SURFACES IN SPACE.  
 03/05/1998 - 01/05/2002 FY00: \$100,000 Total: \$260,000  
 Prin. Invest.: J E COLWELL, S ROBERTSON, M HORANYI  
 Tech. Officer: GRC/H K NAHRA  
 CASE Category: 13 - PHYSICS

**NAG 3 2220 UNIVERSITY OF COLORADO - BOULDER 3018**  
 COMBUSTION OF METALS IN REDUCED-GRAVITY AND EXTRATERRESTRIAL  
 ENVIRONMENTS  
 12/29/1998 - 11/11/2002 FY00: \$115,929 Total: \$189,126  
 Prin. Invest.: M C BRANCH  
 Tech. Officer: GRC/R FRIEDMAN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2267 UNIVERSITY OF COLORADO - BOULDER 3019**  
 COLLISIONS INTO DUST EXPERIMENT II COLLISIONS INTO DUST EXPERIMENT II  
 05/14/1999 - 04/30/2001 FY00: \$31,820 Total: \$71,820  
*Prin. Invest.:* J E COLWELL  
*Tech. Officer:* GRC/B J MOTIL  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2400 UNIVERSITY OF COLORADO - BOULDER 3020**  
 PHYSICS OF REGOLITH IMPACTS IN MICROGRAVITY EXPERIMENT (PRIME)  
 04/19/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* J E COLWELL  
*Tech. Officer:* GRC/B J MOTIL  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2402 UNIVERSITY OF COLORADO - BOULDER 3021**  
 STRATIFIED TAYLOR-COUETTE FLOW WITH RADIAL BUOYANCY  
 04/19/2000 - 11/30/2003 FY00: \$30,000 Total: \$30,000  
*Prin. Invest.:* J E HART  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2457 UNIVERSITY OF COLORADO - BOULDER 3022**  
 STRUCTURE AND DYNAMICS OF FREELY SUSPENDED LIQUID CRYSTALS  
 06/07/2000 - 11/30/2003 FY00: \$76,745 Total: \$76,745  
*Prin. Invest.:* N A CLARK  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 1853 UNIVERSITY OF COLORADO - BOULDER 3023**  
 GODDARD HIGH RESOLUTION SPECTROGRAPH (GHR) INCLUDING ACTIVITIES AS A GHR GUARANTEED TIME OBSERV.  
 01/02/1992 - 11/14/1999 FY00: \$0 Total: \$2,320,952  
*Prin. Invest.:* J C BRANDT  
*Tech. Officer:* GSFC/A SMITH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2256 UNIVERSITY OF COLORADO - BOULDER 3024**  
 GLOBAL-SCALE TURBULENT SOLAR CONVECTION COUPLED TO ROTATION AND MAGNETIC FIELDS  
 04/27/1993 - 12/31/2000 FY00: \$0 Total: \$1,405,000  
*Prin. Invest.:* J TOOMRE  
*Tech. Officer:* GSFC/T J BIRMINGHAM, GSFC/J D BOHLIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 2259 UNIVERSITY OF COLORADO - BOULDER 3025**  
 CONTEMPORANEOUS EUVE AND GHR OBSERVATIONS OF THE OUTER ATMOSPHERIC STRUCTURE OF RS CVN . . .  
 04/30/1993 - 09/30/1999 FY00: \$0 Total: \$144,037  
*Prin. Invest.:* A BROWN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2797 UNIVERSITY OF COLORADO - BOULDER 3026**  
 DYNAMICS OF LARGE SCALE STRUCTURE FROM REDSHIFT SPACE  
 11/18/1994 - 11/30/1999 FY00: -\$28 Total: \$167,472  
*Prin. Invest.:* A J HAMILTON  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2977 UNIVERSITY OF COLORADO - BOULDER 3027**  
 ABSOLUTE GRAVITY/GPS MEASUREMENTS IN GREENLAND  
 06/16/1995 - 08/30/1999 FY00: -\$10 Total: \$132,759  
*Prin. Invest.:* J WAHR, K LARSON  
*Tech. Officer:* GSFC/H J ZWALLY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3133 UNIVERSITY OF COLORADO - BOULDER 3028**  
 THE IMPACT OF SN1987A WITH ITS CIRCUMSTELLAR RING  
 10/24/1995 - 04/30/1999 FY00: -\$52 Total: \$302,948  
*Prin. Invest.:* R A MCCRAY  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3143 UNIVERSITY OF COLORADO - BOULDER 3029**  
 TEMPORAL VARIATIONS OF THE GEOPOTENTIAL  
 11/09/1995 - 11/14/1999 FY00: \$0 Total: \$225,000  
*Prin. Invest.:* J WAHR  
*Tech. Officer:* GSFC/P T TAYLOR  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3224 UNIVERSITY OF COLORADO - BOULDER 3030**  
 X-RAY EMISSION FROM PRE-MAIN SEQUENCE STARS-TESTING THE SOLAR ANALOGY  
 05/07/1996 - 12/31/2000 FY00: \$0 Total: \$338,976  
*Prin. Invest.:* S L SKINNER  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3225 UNIVERSITY OF COLORADO - BOULDER 3031**  
 SPECTRAL AND TEMPORAL PROPERTIES OF BLACK HOLE CANDIDATES  
 05/07/1996 - 08/31/2001 FY00: \$0 Total: \$328,000  
*Prin. Invest.:* M A NOWAK  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3226 UNIVERSITY OF COLORADO - BOULDER 3032**  
 THE FUNDAMENTAL PHYSICAL PROCESSES PRODUCING AND CONTROLLING STELLAR CORONAL/TRANSITION  
 05/07/1996 - 04/30/2001 FY00: \$0 Total: \$553,000  
*Prin. Invest.:* T A AYRES  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3394 UNIVERSITY OF COLORADO - BOULDER 3033**  
 CHARACTERIZING AND QUANTIFYING THE X-RAY VARIABLE SKY  
 09/06/1996 - 09/14/2002 FY00: \$3,779 Total: \$205,188  
*Prin. Invest.:* G S STRINGFELLOW  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3437 UNIVERSITY OF COLORADO - BOULDER 3034**  
 LAND AND LAND-USE CHANGE IN THE CLIMATE SENSITIVE HIGH PLAINS: AN AUTOMATED APPROACH WITH LANDSAT  
 10/07/1996 - 12/31/2000 FY00: \$211,512 Total: \$811,512  
*Prin. Invest.:* A GOETZ  
*Tech. Officer:* GSFC/D L WILLIAMS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3438 UNIVERSITY OF COLORADO - BOULDER 3035**  
 ENHANCED ANTARCTIC RESEARCH WITH LANDSAT: ICE SHEET  
 DYNAMICS, HISTORY AND CARTOGRAPHY  
 10/07/1996 - 12/31/2000 FY00: \$50,933 Total: \$246,545  
*Prin. Invest.:* T SCAMBOS  
*Tech. Officer:* GSFC/D L WILLIAMS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3763 UNIVERSITY OF COLORADO - BOULDER 3036**  
 REMOTE SENSING OF PLANETARY SURFACES  
 02/21/1997 - 01/31/2001 FY00: \$57,000 Total: \$215,823  
*Prin. Invest.:* B M JAKOSKY  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3794 UNIVERSITY OF COLORADO - BOULDER 3037**  
 LIQUID CRYSTAL FOCAL-PLANE SHUTTERS  
 03/25/1997 - 07/31/2001 FY00: \$0 Total: \$58,941  
*Prin. Invest.:* P T STOCKE  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3847 UNIVERSITY OF COLORADO - BOULDER 3038**  
 MAPPING RICE PRODUCTION IN CHINA WITH AVHRR IMAGER  
 01/30/1997 - 11/14/2000 FY00: \$0 Total: \$330,171  
*Prin. Invest.:* W EMERY  
*Tech. Officer:* GSFC/D J KAHLE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3848 UNIVERSITY OF COLORADO - BOULDER 3039**  
 COLLABORATIVE RESEARCH: SCALING THEORIES OF THE 3- OF RIVER  
 NETWORKS  
 02/07/1997 - 09/30/1999 FY00: \$0 Total: \$152,000  
*Prin. Invest.:* V K GUPTA  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3949 UNIVERSITY OF COLORADO - BOULDER 3040**  
 LOWER IONOSPHERE THERMOSPHERE EXPLORER  
 02/21/1997 - 02/14/2001 FY00: \$0 Total: \$199,777  
*Prin. Invest.:* D C SOLOMON  
*Tech. Officer:* GSFC/R HOWARD  
*CASE Category:* 13 - PHYSICS

**NAG 5 3967 UNIVERSITY OF COLORADO - BOULDER 3041**  
 INTEGRATED ANALYSIS OF COLUMELLA CELL STRUCTURE AND  
 03/03/1997 - 02/28/2001 FY00: \$177,607 Total: \$499,236  
*Prin. Invest.:* A STAEHELIN  
*Tech. Officer:* GSFC/M AVERNER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 3997 UNIVERSITY OF COLORADO - BOULDER 3042**  
 WAVELET-BASED INTERPOLATION AND REPRESENTATION OF SPACE-  
 CRAFT MISSION DATA  
 03/13/1997 - 05/31/2000 FY00: \$0 Total: \$190,000  
*Prin. Invest.:* M M LIGHTNER  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 4061 UNIVERSITY OF COLORADO - BOULDER 3043**  
 WARPING AND PRECESSION OF ACCRETION DISKS IN XRAY  
 03/18/1997 - 03/31/2001 FY00: \$0 Total: \$271,500  
*Prin. Invest.:* M C BEGELMAN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4063 UNIVERSITY OF COLORADO - BOULDER 3044**  
 ASTROPHYSICS AT THE DISK-HALO INTERFACE  
 03/18/1997 - 03/31/2001 FY00: \$0 Total: \$293,400  
*Prin. Invest.:* M J SHULL  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4095 UNIVERSITY OF COLORADO - BOULDER 3045**  
 EVENT RATE FOR LISA GRAVITATIONAL WAVE SIGNALS FROM BLACK HOLE  
 COALESCENCES  
 03/12/1997 - 03/31/2001 FY00: \$41,500 Total: \$146,500  
*Prin. Invest.:* D L BENDER  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4099 UNIVERSITY OF COLORADO - BOULDER 3046**  
 NONLINEAR WAVES AND PARTICLE HEATING IN THE AURORA  
 06/27/1997 - 05/31/1999 FY00: \$0 Total: \$113,000  
*Prin. Invest.:* D GOLDMAN  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4100 UNIVERSITY OF COLORADO - BOULDER 3047**  
 LAST YEAR OF FUNDING FOR USERC PROGRAM AT UNIV. OF TRUCTION  
 (CONTINUATION OF NAGW-1388) FOR 6 STUDENTS  
 03/11/1997 - 10/31/1998 FY00: \$0 Total: \$33,500  
*Prin. Invest.:* R SU  
*Tech. Officer:* GSFC/R AVANT  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4163 UNIVERSITY OF COLORADO - BOULDER 3048**  
 DYNAMICAL MODELS OF THE SOLAR SYSTEM FORMATION AND  
 03/26/1997 - 02/28/2001 FY00: \$39,900 Total: \$161,900  
*Prin. Invest.:* D R STEWART  
*Tech. Officer:* GSFC/P ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4171 UNIVERSITY OF COLORADO - BOULDER 3049**  
 COLLABORATIVE RESEARCH: CLIMATE SENSITIVITY OF THAW LAKE  
 SYSTEMS ON THE ALASKAN NORTH SLOPE  
 03/17/1997 - 03/14/2000 FY00: \$14,639 Total: \$133,990  
*Prin. Invest.:* T ZHANG  
*Tech. Officer:* GSFC/E H LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4179 UNIVERSITY OF COLORADO - BOULDER 3050**  
 VARIABLE ICE-SHEET DISCHARGE AND COASTAL CHANGE IN WEST  
 ANTARCTICA  
 03/19/1997 - 12/31/1999 FY00: -\$4,535 Total: \$28,884  
*Prin. Invest.:* T SCAMBOS  
*Tech. Officer:* GSFC/R H THOMAS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4184 UNIVERSITY OF COLORADO - BOULDER 3051**  
 LABORATORY STUDIES OF THE VISIBLE SPECTROSCOPY & C IN THE GAS  
 PHASE  
 03/17/1997 - 12/31/1999 FY00: -\$205 Total: \$79,795  
*Prin. Invest.:* D P SNOW  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4218 UNIVERSITY OF COLORADO - BOULDER 3052**  
 SEA ICE AND OCEAN PROCESSES IN BAFFIN BAY: A STUD DATA AND  
 NUMERICAL MODELING  
 04/15/1997 - 03/31/2000 FY00: \$0 Total: \$228,436  
*Prin. Invest.:* D STEFFEN  
*Tech. Officer:* GSFC/R H THOMAS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4248 UNIVERSITY OF COLORADO - BOULDER 3053**  
 GREENLAND ICE SHEET CLIMATOLOGY AND SURFACE ENERGY GREEN-  
 LAND CLIMATE NETWORK (GCNET)  
 03/26/1997 - 03/31/2001 FY00: \$242,128 Total: \$853,239  
*Prin. Invest.:* D STEFFEN  
*Tech. Officer:* GSFC/R THOMAS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4263 UNIVERSITY OF COLORADO - BOULDER 3054**  
 SIMULATION AND THEORY OF THE FARLEY-BUNEMAN INSTAB  
 IONOSPHERE  
 04/07/1997 - 04/14/2000 FY00: \$0 Total: \$69,807  
*Prin. Invest.:* D OPPENHEIM  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4312 UNIVERSITY OF COLORADO - BOULDER 3055**  
 ORIGINS CONFERENCE-1997  
 04/18/1997 - 12/31/2000 FY00: \$5,473 Total: \$68,473  
*Prin. Invest.:* D M SHULL  
*Tech. Officer:* GSFC/H THRONSON  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4314 UNIVERSITY OF COLORADO - BOULDER 3056**  
 LABORATORY STUDIES OF LOW TEMPERATURE RATE COEFFIC CHEM-  
 ISTRY OF THE OUTER PLANETS  
 04/16/1997 - 12/31/1999 FY00: \$0 Total: \$404,598  
*Prin. Invest.:* D R LEONE  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4343 UNIVERSITY OF COLORADO - BOULDER 3057**  
 DUST PLASMA INTERACTION  
 04/17/1997 - 05/14/2001 FY00: \$0 Total: \$236,500  
*Prin. Invest.:* D HORANYI  
*Tech. Officer:* GSFC/J BOHUN  
*CASE Category:* 13 - PHYSICS

**NAG 5 4440 UNIVERSITY OF COLORADO - BOULDER 3058**  
 RADARSAT ANTARCTIC MAPPING PROJECT  
 05/13/1997 - 06/30/2001 FY00: \$21,293 Total: \$39,535  
*Prin. Invest.:* R G BARRY  
*Tech. Officer:* GSFC/S GOGINENI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4446 UNIVERSITY OF COLORADO - BOULDER 3059**  
 THE DIURNAL CYCLE OF CONVECTION AND ITS INTERACTIO CIRCULATION  
 04/28/1997 - 06/30/2000 FY00: \$0 Total: \$100,000  
*Prin. Invest.:* D L SALBY  
*Tech. Officer:* GSFC/R A SCHIFFER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4447 UNIVERSITY OF COLORADO - BOULDER 3060**  
 UNDERSTANDING VARIABILITY IN THE AVIRIS-DERIVED PA VEGETATION  
 CANOPIES  
 04/25/1997 - 02/29/2000 FY00: -\$37 Total: \$338,622  
*Prin. Invest.:* A GOETZ  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4467 UNIVERSITY OF COLORADO - BOULDER 3061**  
 NATURAL OSCILLATIONS OF THE THERMOSPHERE-IONOSPHER  
 05/27/1997 - 04/30/2001 FY00: \$65,500 Total: \$271,054  
*Prin. Invest.:* P FORBES  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4477 UNIVERSITY OF COLORADO - BOULDER 3062**  
 SOFT X-RAY, OPTICAL-POLARIMETRIC, SOONSPOT AND MICRO NTERPLA-  
 NETARY PROTON ASSOCIATED FLARES AND ACTIVE  
 06/02/1997 - 01/31/2000 FY00: -\$3,267 Total: \$121,086  
*Prin. Invest.:* D KIPLINGER  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 13 - PHYSICS

**NAG 5 4506 UNIVERSITY OF COLORADO - BOULDER 3063**  
 PROPOSAL FOR COLLABORATION ON THE DEVELOPMENT AND AMSR  
 SNOW WATER EQUIVALENT ALGORITHM  
 05/07/1997 - 04/30/2001 FY00: \$0 Total: \$116,604  
*Prin. Invest.:* R L ARMSTRONG  
*Tech. Officer:* GSFC/A T CHANG  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4518 UNIVERSITY OF COLORADO - BOULDER 3064**  
 THE NATURE OF "PASSIVE" ELLIPTICAL GALAXIES; A SEA LUMINOSITY BL  
 LACERTAE OBJECTS; VARIABILITY OF BL  
 07/03/1997 - 06/30/1999 FY00: \$0 Total: \$14,600  
*Prin. Invest.:* J T STOCKE  
*Tech. Officer:* GSFC/R PETRE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4526 UNIVERSITY OF COLORADO - BOULDER 3065**  
 CHARGED PARTICULATES IN THE POLAR MESOSPHERE/INSTR  
 05/07/1997 - 11/30/2000 FY00: \$0 Total: \$228,000  
*Prin. Invest.:* D ROBERTSON  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4580 UNIVERSITY OF COLORADO - BOULDER 3066**  
 A LOW COST MERCURY ORBITER MISSION  
 05/13/1997 - 07/31/1999 FY00: -\$239 Total: \$40,761  
*Prin. Invest.:* P N BAKER  
*Tech. Officer:* GSFC/R HOWARD  
*CASE Category:* 13 - PHYSICS

## NASA'S UNIVERSITY PROGRAM

## COLORADO

**NAG 5 4615 UNIVERSITY OF COLORADO - BOULDER 3067**  
 SATELLITE ATMOSPHERE AND IO TORUS OBSERVATIONS  
 05/20/1997 - 05/14/2000 FY00: \$0 Total: \$210,000  
 Prin. Invest.: D M SCHNEIDER  
 Tech. Officer: GSFC/W HUEBNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4735 UNIVERSITY OF COLORADO - BOULDER 3068**  
 ACTIVITY ON THE EDGE OF CONVECTION: THE ATMOSPHERE \$17,478 AND  
 LINKING THE IMPULSIVE AND GRADUAL PHA  
 06/04/1997 - 06/14/2000 FY00: \$0 Total: \$32,904  
 Prin. Invest.: A BROWN  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4783 UNIVERSITY OF COLORADO - BOULDER 3069**  
 COORDINATED ASCA OBSERVATIONS OF CORONAL STRUCTURE CVN  
 BINARY SIGMA CRB  
 06/20/1997 - 06/30/2000 FY00: \$0 Total: \$17,800  
 Prin. Invest.: A BROWN  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4804 UNIVERSITY OF COLORADO - BOULDER 3070**  
 A UNIFIED ANALYSIS OF NON-RADIATIVE HEATING AND WI  
 07/30/1997 - 07/31/2001 FY00: \$108,100 Total: \$388,600  
 Prin. Invest.: G HARPER  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4896 UNIVERSITY OF COLORADO - BOULDER 3071**  
 ANALYZING THE LOSS, ENERGIZATION, AND TRANSPORT OF IN THE  
 MAGNETOSPHERE  
 06/24/1997 - 07/14/2000 FY00: \$0 Total: \$199,500  
 Prin. Invest.: D LI, NONE  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 4901 UNIVERSITY OF COLORADO - BOULDER 3072**  
 DOCUMENTING, UNDERSTANDING, AND PREDICTING THE AGG RADIATION  
 FLUX FOR SHEBA  
 06/19/1997 - 12/14/2000 FY00: \$0 Total: \$284,507  
 Prin. Invest.: D CURRY  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4906 UNIVERSITY OF COLORADO - BOULDER 3073**  
 GENERATION AT LEVEL 3 SSMR AND SSM/1 BRIGHTNESS TE PERIOD 1978  
 - 1998  
 06/19/1997 - 05/31/1999 FY00: -\$2,036 Total: \$218,093  
 Prin. Invest.: D ARMSTONG  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4907 UNIVERSITY OF COLORADO - BOULDER 3074**  
 POLAR-WIDE GEOPHYSICAL PRODUCTS DERIVED FROM AVHRR  
 06/20/1997 - 09/30/1999 FY00: \$0 Total: \$202,236  
 Prin. Invest.: D MASLANIK  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4918 UNIVERSITY OF COLORADO - BOULDER 3075**  
 PENETRATIVE DYNAMICS OF THE SOLAR INTERIOR  
 07/07/1997 - 11/30/2000 FY00: \$0 Total: \$261,809  
 Prin. Invest.: D JULIEN  
 Tech. Officer: GSFC/W G WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 5020 UNIVERSITY OF COLORADO - BOULDER 3076**  
 HIGH RESOLUTION X-RAY SPECTROSCOPY FROM SOUNDING ROCKETS  
 03/11/1994 - 10/31/2001 FY00: \$239,000 Total: \$1,793,373  
 Prin. Invest.: W C CASH  
 Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS  
 CASE Category: 13 - PHYSICS

**NAG 5 5027 UNIVERSITY OF COLORADO - BOULDER 3077**  
 ENERGY TRANSFER IN THE THERMOSPHERE AND MESOSPHERE FUNDING  
 FOR A ONE-YEAR EFFORT IN BASIC RESEARCH  
 03/03/1995 - 02/29/2004 FY00: \$107,395 Total: \$383,148  
 Prin. Invest.: S SOLOMON  
 Tech. Officer: GSFC/L EARLY  
 CASE Category: 13 - PHYSICS

**NAG 5 5028 UNIVERSITY OF COLORADO - BOULDER 3078**  
 TIDES, PLANETARY WAVES, AND EDDY FORCING OF THE MEAN MLT  
 CIRCULATION FOR THE TIMED SCIENCE...  
 03/03/1995 - 03/05/2005 FY00: \$106,390 Total: \$676,126  
 Prin. Invest.: J FORBES  
 Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS  
 CASE Category: 13 - PHYSICS

**NAG 5 5096 UNIVERSITY OF COLORADO - BOULDER 3079**  
 HIGH RESOLUTION SPECTROSCOPY IN THE FAR AND EXTREME  
 ULTRAVIOLET  
 12/02/1996 - 05/31/2003 FY00: \$423,900 Total: \$1,796,900  
 Prin. Invest.: E WILKINSON  
 Tech. Officer: GSFC/W JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5141 UNIVERSITY OF COLORADO - BOULDER 3080**  
 AIRGLOW ROCKET  
 04/25/1997 - 03/31/2000 FY00: \$0 Total: \$65,000  
 Prin. Invest.: T WOODS  
 Tech. Officer: GSFC/W JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5168 UNIVERSITY OF COLORADO - BOULDER 3081**  
 ANALYSIS OF TIME DEPENDENT FAULT INTERACTIONS AND CALIFORNIA  
 07/17/1997 - 07/14/2001 FY00: \$55,000 Total: \$236,922  
 Prin. Invest.: J B RUNDLE, NONE  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 5274 UNIVERSITY OF COLORADO - BOULDER 3082**  
 FUNDING FOR PHASE 1 AWARD OF THE OWLS/MARE PROJECT UNESS  
 06/21/2000 - 04/13/2006 FY00: \$370,000 Total: \$370,000  
 Prin. Invest.: W EMERY  
 Tech. Officer: WFF/D L PIERCE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6048 UNIVERSITY OF COLORADO - BOULDER 3083**  
 LATE STAGES OF ACCRETION OF URANUS AND NEPTUNE  
 07/25/1997 - 06/30/2001 FY00: \$26,000 Total: \$137,170  
 Prin. Invest.: D STEWART  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6051 UNIVERSITY OF COLORADO - BOULDER 3084**  
 ASSESSING FUTURE STABILITY OF US HIGH PLAINS LANDC PROCESS  
 MODELING WITH LANDSAT IN SITU MODERN, AND  
 07/28/1997 - 06/30/2001 FY00: \$65,000 Total: \$530,000  
 Prin. Invest.: D WEBB  
 Tech. Officer: GSFC/G C GUTMIN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6133 UNIVERSITY OF COLORADO - BOULDER 3085**  
 DYNAMICAL AND CHEMICAL BEHAVIOR OF THE STRATOSPHER  
 08/11/1997 - 09/30/1999 FY00: \$0 Total: \$45,000  
 Prin. Invest.: D L SALBY  
 Tech. Officer: GSFC/J A KAYE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6134 UNIVERSITY OF COLORADO - BOULDER 3086**  
 QUANTIFYING GRASSLAND-TO-WOODLAND TRANSITIONS AND CARBON  
 AND NITROGEN DYNAMICS IN THE SOUTHWEST UNIT  
 09/08/1997 - 01/31/2001 FY00: \$66,940 Total: \$548,190  
 Prin. Invest.: D A WESSMAN  
 Tech. Officer: GSFC/A C JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6138 UNIVERSITY OF COLORADO - BOULDER 3087**  
 LUNAR DUST: EROSION AND TRANSPORT  
 09/04/1997 - 02/28/1999 FY00: -\$3 Total: \$99,997  
 Prin. Invest.: D HORANDYI  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6147 UNIVERSITY OF COLORADO - BOULDER 3088**  
 VARIATIONS IN GPS TIME SERIES: A STUDY OF HYDROLO  
 08/21/1997 - 08/31/2001 FY00: \$56,000 Total: \$225,526  
 Prin. Invest.: K M LARSON  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6162 UNIVERSITY OF COLORADO - BOULDER 3089**  
 EARTHWORKS EDUCATING TEACHERS IN EARTH SYSTEM SCIE  
 08/01/1997 - 07/31/2000 FY00: \$0 Total: \$57,898  
 Prin. Invest.: H SPETZLER  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6198 UNIVERSITY OF COLORADO - BOULDER 3090**  
 MODELING SUBSTORM DYNAMICS WITH A LOW-DIMENSIONAL E SPACE  
 SYSTEM  
 08/20/1997 - 12/31/2000 FY00: \$0 Total: \$152,068  
 Prin. Invest.: D DOXAS  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 6270 UNIVERSITY OF COLORADO - BOULDER 3091**  
 EVOLUTION AND ACTIVITY IN THE SOLAR CORONA: A COM CHRO-  
 MOSPHERIC STRUCTURES SEEN IN SOFT X-RAYS, WH  
 08/21/1997 - 11/30/2000 FY00: \$0 Total: \$159,886  
 Prin. Invest.: D BAGENAL  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6302 UNIVERSITY OF COLORADO - BOULDER 3092**  
 DYNAMICS OF PLANETESIMAL & THE KUIPER COMET BELT  
 10/10/1997 - 03/31/2000 FY00: \$0 Total: \$244,038  
 Prin. Invest.: D R STEWART  
 Tech. Officer: HQ/M M BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6337 UNIVERSITY OF COLORADO - BOULDER 3093**  
 X-RAY REPROCESSING IN ACTIVE GALACTIC NUCLEI  
 10/30/1997 - 10/31/2000 FY00: \$105,300 Total: \$312,100  
 Prin. Invest.: M BEGELMAN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6462 UNIVERSITY OF COLORADO - BOULDER 3094**  
 VALIDATION STUDIES AND SENSITIVITY ANALYSES FOR RE TRIEVALS OF  
 SNOW ALBEDO & SNOWCOVERED AREA FROM  
 10/14/1997 - 09/30/2001 FY00: \$93,274 Total: \$275,633  
 Prin. Invest.: A NOLIN  
 Tech. Officer: GSFC/D STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6474 UNIVERSITY OF COLORADO - BOULDER 3095**  
 IMAGING INTERPLANETARY HYDROGEN WITH ULYSSES  
 11/13/1997 - 10/31/2000 FY00: \$40,000 Total: \$120,000  
 Prin. Invest.: D PRYOR  
 Tech. Officer: GSFC/L LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6504 UNIVERSITY OF COLORADO - BOULDER 3096**  
 EARTH OBSERVING SYSTEM (EOS) IDS  
 10/24/1997 - 02/28/2001 FY00: \$40,000 Total: \$504,931  
 Prin. Invest.: O B TOON  
 Tech. Officer: GSFC/D RIND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6521 UNIVERSITY OF COLORADO - BOULDER 3097**  
 IMPROVING THE ACCURACY OF SATELLITE SEA SURFACE TE MPERATURE  
 MEASUREMENTS BY EXPLICITLY ACCOUNTING F  
 12/05/1997 - 09/30/2000 FY00: \$113,000 Total: \$526,369  
 Prin. Invest.: D EMERY  
 Tech. Officer: GSFC/J C DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6627 UNIVERSITY OF COLORADO - BOULDER 3098**  
 CYCLIC AND LONG TERM TRENDS IN THE MESOSPHERE  
 11/18/1997 - 11/30/2000 FY00: \$0 Total: \$236,548  
 Prin. Invest.: D E THOMAS  
 Tech. Officer: GSFC/C JACKMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE



<b>NAG 5 6629 UNIVERSITY OF COLORADO - BOULDER 3099</b> STUDIES OF TROPICAL/MID-LATITUDE EXCHANGE USING UARS OBSERVATIONS 11/18/1997 - 11/30/2000 FY00: \$54,174 Total: \$160,089 <i>Prin. Invest.:</i> D AVALONE <i>Tech. Officer:</i> GSFC/A DOUGLASS <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 6791 UNIVERSITY OF COLORADO - BOULDER 3106</b> EXTRACTION OF TIDES AND PLANETARY WAVES FROM SATELLITE OBSERVATIONS 02/17/1998 - 02/28/2001 FY00: \$45,900 Total: \$142,043 <i>Prin. Invest.:</i> S PALO <i>Tech. Officer:</i> GSFC/M MELLOTT <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 6636 UNIVERSITY OF COLORADO - BOULDER 3100</b> PASSIVE MICROWAVE SNOW COVER ALGORITHM INTERCOMPARISON AND VALIDATION 11/18/1997 - 10/31/2001 FY00: \$82,267 Total: \$307,162 <i>Prin. Invest.:</i> D L ARMSTRONG <i>Tech. Officer:</i> GSFC/J C DODGE <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 6820 UNIVERSITY OF COLORADO - BOULDER 3107</b> ARTIC REGIONAL SEA-ICE ANOMALIES: A DIAGNOSIS OF ICE-ATMOSPHERE OCEAN INTERACTIONS AND LINKAGES TO 01/09/1998 - 12/31/2000 FY00: \$92,480 Total: \$257,503 <i>Prin. Invest.:</i> A LYNCH <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 6651 UNIVERSITY OF COLORADO - BOULDER 3101</b> CENTERS OF EXCELLENCE IN APPLICATIONS OF REMOTE SENSING TO REGIONAL AND GLOBAL INTEGRATED ENVIRONMENT 12/11/1997 - 05/31/1999 FY00: -\$47 Total: \$216,861 <i>Prin. Invest.:</i> A GOETZ <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 6850 UNIVERSITY OF COLORADO - BOULDER 3108</b> UARS - SOLSTICE 01/12/1998 - 12/14/2000 FY00: \$251,000 Total: \$723,000 <i>Prin. Invest.:</i> D ROTTMAN <i>Tech. Officer:</i> GSFC/C JACKMAN <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 6666 UNIVERSITY OF COLORADO - BOULDER 3102</b> AVHRR-BASED POLAR PATHFINDER PRODUCTS - EVALUATION, ENHANCEMENT AND TRANSITION TO MODIS 11/25/1997 - 11/30/2000 FY00: \$98,973 Total: \$292,968 <i>Prin. Invest.:</i> D FOWLER <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> GSFC/J C DODGE <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 6875 UNIVERSITY OF COLORADO - BOULDER 3109</b> ABSOLUTE GRAVITY/GPS MEASUREMENTS IN GREENLAND 02/17/1998 - 12/31/2000 FY00: \$17,738 Total: \$57,574 <i>Prin. Invest.:</i> J WAHR <i>Tech. Officer:</i> GSFC/S GOGINENI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 6683 UNIVERSITY OF COLORADO - BOULDER 3103</b> MODELING AND ANALYSIS OF UARS DATA IN THE STRATOSPHERE, MESOSPHERE, AND LOWER THERMOSPHERE 12/08/1997 - 11/30/2000 FY00: \$20,000 Total: \$80,000 <i>Prin. Invest.:</i> S BAILEY <i>Tech. Officer:</i> GSFC/C JACKMAN <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 6880 UNIVERSITY OF COLORADO - BOULDER 3110</b> LASER INTERFEROMETRY TECHNIQUES FOR ACCURATE MEASUREMENT OF DISTANCE CHANGES BETWEEN WIDELY SEPARATED 02/17/1998 - 12/31/2000 FY00: \$125,000 Total: \$285,000 <i>Prin. Invest.:</i> R T STEBBINS, NONE <i>Tech. Officer:</i> GSFC/P CRANE <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 6725 UNIVERSITY OF COLORADO - BOULDER 3104</b> INOSPHERE DELAY CORRECTION FOR SINGLE-FREQUENCY RADAR ALTIMETRY 12/16/1997 - 12/14/1999 FY00: \$0 Total: \$105,000 <i>Prin. Invest.:</i> BORN <i>Tech. Officer:</i> GSFC/E LINDSTROM <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 6900 UNIVERSITY OF COLORADO - BOULDER 3111</b> INVESTIGATIONS OF CLOUDS AND AEROSOLS ON MARS AND VENUS 01/21/1998 - 09/30/2000 FY00: \$74,230 Total: \$221,439 <i>Prin. Invest.:</i> O TOON <i>Tech. Officer:</i> GSFC/R BEEBE <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 6758 UNIVERSITY OF COLORADO - BOULDER 3105</b> LABORATORY STUDIES OF THE VISIBLE SPECTROSCOPY AND CHEMISTRY OF POLYCYCLIC AROMATIC HYDROCARBON (PAH) 12/24/1997 - 12/31/2000 FY00: \$151,662 Total: \$346,662 <i>Prin. Invest.:</i> T P SNOW <i>Tech. Officer:</i> GSFC/H HASAN <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 6901 UNIVERSITY OF COLORADO - BOULDER 3112</b> CHROMOSPHERIC STRUCTURE AND WIND ACCELERATION IN ZETA AURORAL STARS 02/04/1998 - 02/14/2001 FY00: \$0 Total: \$40,000 <i>Prin. Invest.:</i> P BENNETT <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY
	<b>NAG 5 6909 UNIVERSITY OF COLORADO - BOULDER 3113</b> EUVE OBSERVATION OF THE JUPITER SYSTEM 02/25/1998 - 03/31/2000 FY00: \$0 Total: \$24,402 <i>Prin. Invest.:</i> N SCHNEIDER <i>Tech. Officer:</i> GSFC/R OLIVERSEN <i>CASE Category:</i> 22 - COMPUTER SCIENCE

<b>NAG 5 6936</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3114</b>	THE EVOLUTION AND X-RAY MORPHOLOGY OF DISTANT CLUSTERS OF GALAXIES 02/04/1998 - 02/14/2001      FY00: \$0      Total: \$80,000 Prin. Invest.: J T STOCKE Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY
<b>NAG 5 6984</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3115</b>	MEDIUM ENERGY PARTICLE PRECIPITATION EFFECTS ON THE MESOSPHERE AND LOWER THERMOSPHERE 02/27/1998 - 03/31/2001      FY00: \$77,700      Total: \$229,484 Prin. Invest.: M CODRESCU Tech. Officer: GSFC/M MELLOTT CASE Category: 11 - ASTRONOMY
<b>NAG 5 7020</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3116</b>	TIME-RESOLVED SPECTROSCOPY OF ACTIVE BINARY STARS 02/17/1998 - 02/14/2000      FY00: \$0      Total: \$18,520 Prin. Invest.: A BROWN Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY
<b>NAG 5 7021</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3117</b>	SATELLITE REMOTE SENSING OF TROPICAL ICE CLOUDS AND PRECIPITATION FOR GCM VERIFICATION 03/19/1998 - 12/31/2000      FY00: \$0      Total: \$97,981 Prin. Invest.: D EVANS Tech. Officer: GSFC/K H BERGMAN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 7024</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3118</b>	V1408 AQL: BLACK HOLE CANDIDATE OR NEUTRON STAR X-RAY BINARY? XTE PROPOSAL 02/13/1998 - 02/14/1999      FY00: \$0      Total: \$8,806 Prin. Invest.: M C BEGELMAN Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY
<b>NAG 5 7062</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3119</b>	SOLAR AND INTERPLANETARY OPTICAL SUPPORT FOR SOHO 02/24/1998 - 08/31/1999      FY00: -\$2      Total: \$18,633 Prin. Invest.: A KIPLINGER Tech. Officer: GSFC/A POLAND CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 5 7071</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3120</b>	SMALL-SCALE POLYGONS AND THE HISTORY OF GROUND ICE ON MARS 02/20/1998 - 02/14/2000      FY00: -\$12      Total: \$117,688 Prin. Invest.: T T MELLON Tech. Officer: GSFC/P ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 7088</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3121</b>	MHD SIMULATIONS OF THE COUPLING BETWEEN IO AND JUPITER 02/23/1998 - 03/31/2001      FY00: \$86,013      Total: \$199,346 Prin. Invest.: F BAGENAL Tech. Officer: GSFC/D EVANS CASE Category: 11 - ASTRONOMY
<b>NAG 5 7112</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3122</b>	SAMPX DATA ANALYSIS 03/25/1998 - 02/29/2000      FY00: \$0      Total: \$129,000 Prin. Invest.: D N BAKER Tech. Officer: GSFC/J A SLAVIN CASE Category: 11 - ASTRONOMY
<b>NAG 5 7128</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3123</b>	PRECISION MEASUREMENT OF LARGE SCALE STRUCTURE-ATP 03/24/1998 - 02/14/2001      FY00: \$83,838      Total: \$207,289 Prin. Invest.: A J HAMILTON Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY
<b>NAG 5 7167</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3124</b>	FORMATION OF THE MOON FROM AN IMPACT-GENERATED DEBRIS DISK 03/16/1998 - 03/31/2000      FY00: \$0      Total: \$125,000 Prin. Invest.: R CANUP Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 7190</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3125</b>	LITHOSPHERIC DYNAMICS OF VENUS AND MARS 04/09/1998 - 08/14/2000      FY00: \$0      Total: \$78,800 Prin. Invest.: R E GRIMM Tech. Officer: GSFC/P ROGERS CASE Category: 11 - ASTRONOMY
<b>NAG 5 7223</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3126</b>	A SEARCH FOR CORONAL EMISSION AT THE BOTTOM OF THE MAIN-SEQUENCE 04/09/1998 - 04/14/2002      FY00: \$0      Total: \$9,920 Prin. Invest.: G S STRINGFELLOW Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY
<b>NAG 5 7234</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3127</b>	THE SOHO-STELLAR CONNECTION 04/08/1998 - 04/30/1999      FY00: -\$2      Total: \$39,998 Prin. Invest.: T R AYRES Tech. Officer: GSFC/W WAGNER CASE Category: 11 - ASTRONOMY
<b>NAG 5 7262</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3128</b>	THE INTERGALACTIC MEDIUM AND QSO ABSORPTION SYSTEMS (LTSA - NEW) 04/28/1998 - 04/30/2001      FY00: \$109,200      Total: \$313,600 Prin. Invest.: J SHULL Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY
<b>NAG 5 7329</b>	<b>UNIVERSITY OF COLORADO - BOULDER</b>	<b>3129</b>	XTE PROPOSAL - RXTE OBSERVATIONS OF M87: INVESTIGATING THE NON-THERMAL CONTINUUM 04/24/1998 - 04/14/2001      FY00: \$0      Total: \$8,000 Prin. Invest.: C REYNOLDS Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY

<p><b>NAG 5 7339 UNIVERSITY OF COLORADO - BOULDER 3130</b>  XTE PROPOSAL - CYGNUS X-1: DIPS AND LOW FREQUENCY NOISE  04/24/1998 - 01/31/2000 FY00: -\$5 Total: \$8,662  Prin. Invest.: M BEGELMAN  Tech. Officer: GSFC/J SWANK  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7496 UNIVERSITY OF COLORADO - BOULDER 3138</b>  EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASS L AND REGIONS  06/29/1998 - 06/30/2001 FY00: \$0 Total: \$113,327  Prin. Invest.: A FREI  Tech. Officer: GSFC/E T ENGMAN  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 7340 UNIVERSITY OF COLORADO - BOULDER 3131</b>  XTE PROPOSAL - LONG-TERM MONITORING OF THE BLACK HOLE CANDIDATES LMCX-1 AND LMC X-3  04/24/1998 - 04/30/1999 FY00: -\$45 Total: \$8,288  Prin. Invest.: M BEGELMAN  Tech. Officer: GSFC/J SWANK  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7541 UNIVERSITY OF COLORADO - BOULDER 3139</b>  THE USE OF CASES OBSERVATIONS TO ASSESS AND PARAMETERIZE THE IMPACT OF LAND-SURFACE HETEROGENEITY O  06/18/1998 - 08/31/2001 FY00: \$0 Total: \$100,351  Prin. Invest.: D YATES  Tech. Officer: GSFC/E ENGMAN  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 7365 UNIVERSITY OF COLORADO - BOULDER 3132</b>  RELATIONSHIPS BETWEEN THE BULK-SKIN SEA SURFACE TEMPERATURE DIFFERENCE, WIND AND NET AIR-SEA HEAT F  04/29/1998 - 12/31/2000 FY00: \$103,648 Total: \$282,444  Prin. Invest.: W EMERY  Tech. Officer: GSFC/E LINDSTROM  CASE Category: 33 - OCEANOGRAPHY</p>	<p><b>NAG 5 7543 UNIVERSITY OF COLORADO - BOULDER 3140</b>  INVESTIGATING DOWNSCALING METHODS AND EVALUATING CLIMATE MODELS FOR USE IN ESTIMATING REGIONAL WATE  06/23/1998 - 07/31/2001 FY00: \$0 Total: \$270,000  Prin. Invest.: A FREI  Tech. Officer: GSFC/E T ENGMAN  CASE Category: 32 - GEOLOGICAL SCIENCE</p>
<p><b>NAG 5 7398 UNIVERSITY OF COLORADO - BOULDER 3133</b>  XTE PROPOSAL - COORDINATED XTE OBSERVATIONS OF FLARES AND CORONAL STRUCTURE ON THE RS CVN BINARY  05/13/1998 - 05/31/2000 FY00: \$0 Total: \$6,065  Prin. Invest.: A BROWN  Tech. Officer: GSFC/J SWANK  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7611 UNIVERSITY OF COLORADO - BOULDER 3141</b>  FOLLOW-ON STUDY FOR ICESAT SPACECRAFT POINTING; PERIOD OF PERFORMANCE: 8/1/9  07/22/1998 - 07/31/2000 FY00: \$0 Total: \$75,000  Prin. Invest.: G BORN  Tech. Officer: GSFC/G SMITH  CASE Category: 42 - ASTRONAUTICAL ENGR</p>
<p><b>NAG 5 7402 UNIVERSITY OF COLORADO - BOULDER 3134</b>  INTEGRATED USE OF EXPERIMENTAL MODELING &amp; REMOTE SENSING TECHNIQUES TO INVESTIGATE CARBON ISOTOPE  05/15/1998 - 11/30/1999 FY00: \$0 Total: \$201,537  Prin. Invest.: A TOWNSEND  Tech. Officer: GSFC/D E WICKLAND  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7638 UNIVERSITY OF COLORADO - BOULDER 3142</b>  INTERFEROMETRIC TECHNIQUES FOR GRAVITATIONAL WAVE DETECTION IN SPACE  12/08/1998 - 12/31/1999 FY00: \$0 Total: \$44,000  Prin. Invest.: D T STEBBINS  Tech. Officer: GSFC/H HASAN  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 7449 UNIVERSITY OF COLORADO - BOULDER 3135</b>  RELATIONSHIPS BETWEEN INTERSTELLAR AND INTERPLANETARY GRAINS  07/02/1998 - 06/30/2001 FY00: \$27,500 Total: \$83,500  Prin. Invest.: T P SNOW  Tech. Officer: HQ/J BOYCE  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7652 UNIVERSITY OF COLORADO - BOULDER 3143</b>  AN INVESTIGATION OF THE EFFECT OF PARTICLE IONIZATION ON THE EARTH'S MIDDLE ATMOSPHERE AND ITS R  08/25/1998 - 09/30/2001 FY00: \$75,000 Total: \$195,000  Prin. Invest.: D W RUSCH  Tech. Officer: HQ/J SHARBER  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 7465 UNIVERSITY OF COLORADO - BOULDER 3136</b>  NARROW BAND IMAGING WITH HOLOGRAPHIC TELESCOPES  11/25/1998 - 12/31/2000 FY00: \$51,810 Total: \$100,810  Prin. Invest.: D WILKINSON  Tech. Officer: GSFC/H HASAN  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7679 UNIVERSITY OF COLORADO - BOULDER 3144</b>  CLOUD STRUCTURE RECONSTRUCTION AND SHORTWAVE RADIATIVE TRANSFER MODELING FOR ARMYEAR 1 OF A 3 YEAR  09/17/1998 - 08/31/2001 FY00: \$50,000 Total: \$143,000  Prin. Invest.: K EVANS  Tech. Officer: GSFC/W WISCOMBE  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 5 7466 UNIVERSITY OF COLORADO - BOULDER 3137</b>  AEROSOL-CLOUD-CLIMATE INTERACTIONS  05/28/1998 - 05/31/2000 FY00: \$0 Total: \$122,473  Prin. Invest.: K STEFFEN  Tech. Officer: GSFC/J ZWALLY  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	

**NAG 5 7703 UNIVERSITY OF COLORADO - BOULDER 3145**  
 FUNDING FOR TEMPORAL VARIATIONS OF THE GEOPOTENTIAL  
 (SENH98-0102)  
 09/23/1998 - 03/31/2001 FY00: \$95,000 Total: \$238,000  
 Prin. Invest.: J M WAHR  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7723 UNIVERSITY OF COLORADO - BOULDER 3146**  
 THE DISK WIND MODEL OF THE BROAD LINE REGIONS IN ACTIVE GALACTIC NUCLEI AND CATAclysmic VARI  
 09/23/1998 - 09/30/2000 FY00: \$0 Total: \$83,417  
 Prin. Invest.: M C BEGELMAN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7725 UNIVERSITY OF COLORADO - BOULDER 3147**  
 MODEL PREDICTIONS OF INTERACTIONS BETWEEN SOLAR AND ANTHROPOGENIC PERTURBATIONS IN THE EARTH  
 09/23/1998 - 09/30/2001 FY00: \$0 Total: \$41,500  
 Prin. Invest.: D RUSCH  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7760 UNIVERSITY OF COLORADO - BOULDER 3148**  
 CHARACTERIZING THE SINGLE COAST ICE STREAM SYSTEM USING SATELLITE IMAGES, IMPROVED TOPOGRAPHY, AND IN  
 12/21/1998 - 12/31/2000 FY00: \$41,981 Total: \$80,415  
 Prin. Invest.: T A SCAMBOS  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7784 UNIVERSITY OF COLORADO - BOULDER 3149**  
 SOLAR MESOSPHERE EXPLORER MEASUREMENTS OF EL CHICHON AEROSOLS  
 11/09/1998 - 10/31/2000 FY00: \$58,000 Total: \$115,850  
 Prin. Invest.: C E RANDALL  
 Tech. Officer: GSFC/M MISHCHENKO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7838 UNIVERSITY OF COLORADO - BOULDER 3150**  
 STUDY OF ANOMALOUS VARIATION OF THE TOTAL SOLAR IR RADIANCE AT THE BEGINNING OF SOLAR CYCLE 23  
 12/16/1998 - 12/14/2000 FY00: \$63,251 Total: \$125,020  
 Prin. Invest.: G DE TOMA  
 Tech. Officer: GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7851 UNIVERSITY OF COLORADO - BOULDER 3151**  
 MULTI-WAVELENGTH TESTING OF BROADBAND EUV GRATINGS  
 11/30/1998 - 12/31/2000 FY00: \$0 Total: \$52,000  
 Prin. Invest.: D WILKINSON  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7881 UNIVERSITY OF COLORADO - BOULDER 3152**  
 INFRARED, IMAGING, AND MODELING STUDIES OF CONDENSATES AND DUST IN THE MARTIAN POLAR REGIONS  
 11/30/1998 - 04/30/2000 FY00: \$0 Total: \$54,145  
 Prin. Invest.: D W LEE  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7897 UNIVERSITY OF COLORADO - BOULDER 3153**  
 ASCA OBSERVATIONS OF THE SEYFERT 1 GALAXY NGC5548 - ADP 98  
 12/10/1998 - 12/14/1999 FY00: -\$15 Total: \$7,985  
 Prin. Invest.: C S REYNOLDS  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7996 UNIVERSITY OF COLORADO - BOULDER 3154**  
 GLOBAL AND LOCAL HELIOSEISMIC STUDIES OF SOLAR CONVECTION-ZONE DYNAMICS USING SOI-MDI  
 01/05/1999 - 12/31/2000 FY00: \$275,000 Total: \$475,000  
 Prin. Invest.: J TOOMRE  
 Tech. Officer: GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8047 UNIVERSITY OF COLORADO - BOULDER 3155**  
 A COMPARATIVE ANALYSIS OF THE GALILEO-ERA IONOSPHERE & ATMOSPHERE  
 01/15/1999 - 01/14/2001 FY00: \$55,000 Total: \$105,000  
 Prin. Invest.: N M SCHNEIDER  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8096 UNIVERSITY OF COLORADO - BOULDER 3156**  
 ULTRAVIOLET STUDIES OF JUPITER'S HYDROCARBONS AND AEROSOLS FROM GALILEO  
 01/29/1999 - 01/31/2001 FY00: \$55,000 Total: \$110,000  
 Prin. Invest.: D R PRYOR  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8108 UNIVERSITY OF COLORADO - BOULDER 3157**  
 THE YOUNGEST STARS - LTSA 98  
 02/11/1999 - 02/14/2001 FY00: \$94,881 Total: \$197,066  
 Prin. Invest.: J BALLY  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8127 UNIVERSITY OF COLORADO - BOULDER 3158**  
 "INFRARED OPTICAL CONSTANTS OF PARTICLES IN THE LOWER STRATOSPHERE AND UPPER TROPOSPHERE"  
 02/04/1999 - 11/30/2000 FY00: \$102,635 Total: \$213,136  
 Prin. Invest.: M A TOLBERT  
 Tech. Officer: GSFC/M D KING  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8133 UNIVERSITY OF COLORADO - BOULDER 3159**  
 GLOBAL MODELS OF SOLAR CONVECTION, ROTATION AND MAGNETIC ACTIVITY  
 03/02/1999 - 04/30/2001 FY00: \$295,788 Total: \$580,788  
 Prin. Invest.: J TOOMRE  
 Tech. Officer: GSFC/J M GREBOWSKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8178 UNIVERSITY OF COLORADO - BOULDER 3160**  
 ULTRAVIOLET PHOTOMETRIC PARAMETERS OF THE ICY GALILEAN SATELLITES AND THE MOON  
 02/11/1999 - 02/14/2001 FY00: \$34,314 Total: \$64,800  
 Prin. Invest.: A HENDRIX  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

<b>NAG 5 8236 UNIVERSITY OF COLORADO - BOULDER 3161</b> SN1987A: THE BIRTH OF A SUPERNOVA REMNANT (ATP 98) 02/25/1999 - 02/28/2000 FY00: \$0 Total: \$98,558 <i>Prin. Invest.:</i> R A MCCRAY <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8362 UNIVERSITY OF COLORADO - BOULDER 3169</b> THEORETICAL STUDIES OF MICROPHYSICAL MARINE BOUNDARY-LAYER CLOUDS 03/15/1999 - 03/14/2002 FY00: \$0 Total: \$105,532 <i>Prin. Invest.:</i> O B TOON <i>Tech. Officer:</i> GSFC/M MISCHENKO <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 8247 UNIVERSITY OF COLORADO - BOULDER 3162</b> GGS CEPPAD SUPPLEMENT 02/24/1999 - 01/31/2001 FY00: \$105,000 Total: \$201,000 <i>Prin. Invest.:</i> D BAKER <i>Tech. Officer:</i> GSFC/R HOFFMAN <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER	<b>NAG 5 8399 UNIVERSITY OF COLORADO - BOULDER 3170</b> POLAR PATHFINDER HDF-EOS PILOT PROJECT 05/14/1999 - 05/14/2001 FY00: \$28,006 Total: \$92,006 <i>Prin. Invest.:</i> R L WEAVER <i>Tech. Officer:</i> GSFC/K MOE <i>CASE Category:</i> 22 - COMPUTER SCIENCE
<b>NAG 5 8256 UNIVERSITY OF COLORADO - BOULDER 3163</b> JOVIAN AURORAL CHEMISTRY 02/11/1999 - 02/14/2001 FY00: \$11,304 Total: \$23,304 <i>Prin. Invest.:</i> W PRYOR <i>Tech. Officer:</i> GSFC/R BEEBE <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8442 UNIVERSITY OF COLORADO - BOULDER 3171</b> NONLINEAR MODELING OF HIGH-LATITUDE ELECTRODYNAMICS AND MID-LATITUDE CURRENTS AND PREDICTION FROM R 04/08/1999 - 04/30/2001 FY00: \$16,802 Total: \$33,008 <i>Prin. Invest.:</i> D N BAKER <i>Tech. Officer:</i> GSFC/A J KLIMAS <i>CASE Category:</i> 13 - PHYSICS
<b>NAG 5 8259 UNIVERSITY OF COLORADO - BOULDER 3164</b> MULTISPECTRAL MAPPING OF THE MARTIAN POLAR ICE CAP S 02/16/1999 - 02/28/2001 FY00: \$67,000 Total: \$148,000 <i>Prin. Invest.:</i> A W NOLIN <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8461 UNIVERSITY OF COLORADO - BOULDER 3172</b> FUNDS TO UNSOLICITED PROPOSAL "SAMPEX DATA ANALYSIS" 04/15/1999 - 04/14/2000 FY00: \$0 Total: \$26,000 <i>Prin. Invest.:</i> D BAKER <i>Tech. Officer:</i> GSFC/J SLAVIN <i>CASE Category:</i> 13 - PHYSICS
<b>NAG 5 8266 UNIVERSITY OF COLORADO - BOULDER 3165</b> WAVE STRUCTURES AND VERTICAL COUPLING IN THE MARTIAN ATMOSPHERE 02/24/1999 - 05/31/2001 FY00: \$41,000 Total: \$81,900 <i>Prin. Invest.:</i> J M FORBES <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8534 UNIVERSITY OF COLORADO - BOULDER 3173</b> LAND SURFACE MODELING & DATA ASSIMILATION WITH IN SITU & REMOTE SENSING DATA FROM CASES-97 07/08/1999 - 09/14/2000 FY00: -\$42,167 Total: \$10,833 <i>Prin. Invest.:</i> R QUALLS <i>Tech. Officer:</i> GSFC/E T ENGMAN <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 8311 UNIVERSITY OF COLORADO - BOULDER 3166</b> THE DIURNAL CYCLE OF CONVECTION AND ITS INTERACTION WITH THE LARGE SCALE CIRCULATION 03/12/1999 - 02/28/2001 FY00: \$0 Total: \$42,792 <i>Prin. Invest.:</i> M L SALBY <i>Tech. Officer:</i> GSFC/J R CURRAN <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 8538 UNIVERSITY OF COLORADO - BOULDER 3174</b> SUPERCONDUCTING MIXERS FOR FAR INFRARED SPECTROSCOPY 08/11/1999 - 08/14/2001 FY00: \$103,000 Total: \$203,000 <i>Prin. Invest.:</i> A L BETZ <i>Tech. Officer:</i> GSFC/C MUCKLOW <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 8320 UNIVERSITY OF COLORADO - BOULDER 3167</b> INTEGRATING MICROWAVE AND HYPERSPECTRAL REMOTE SENSING FOR ESTIMATING VEGETATION STRUCTURE AND BIOMASS 04/06/1999 - 03/31/2001 FY00: \$42,864 Total: \$86,579 <i>Prin. Invest.:</i> G P ASNER <i>Tech. Officer:</i> GSFC/D C WICKLAND <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 8615 UNIVERSITY OF COLORADO - BOULDER 3175</b> APPLICATION OF SATELLITE SAR IMAGERY IN MAPPING THE ACTIVE LAYER OF ARCTIC PERMAFROST 06/14/1999 - 06/30/2001 FY00: \$34,418 Total: \$66,015 <i>Prin. Invest.:</i> T ZHANG <i>Tech. Officer:</i> GSFC/E T ENGMAN <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 8338 UNIVERSITY OF COLORADO - BOULDER 3168</b> PHOTOMETRIC ANALYSIS OF THE JOVIAN RING SYSTEM AND MODELING OF RING ORIGIN AND EVOLUTION 03/23/1999 - 04/30/2001 FY00: \$63,098 Total: \$122,874 <i>Prin. Invest.:</i> L W ESPOSITO <i>Tech. Officer:</i> GSFC/R BEEBE <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8643 UNIVERSITY OF COLORADO - BOULDER 3176</b> DISTRIBUTION & AUTOMATION TECHNOLOGY APPLICATION, "DATA" 07/08/1999 - 06/30/2001 FY00: \$282,045 Total: \$568,626 <i>Prin. Invest.:</i> E R HANSEN <i>Tech. Officer:</i> GSFC/G MUCKLOW <i>CASE Category:</i> 22 - COMPUTER SCIENCE

<p><b>NAG 5 8697 UNIVERSITY OF COLORADO - BOULDER 3177</b>  ALGORITHMS FOR AUTONOMOUS GPS ORBIT DETERMINATION &amp; FORMATION FLYING  08/18/1999 - 08/14/2001 FY00: \$89,280 Total: \$146,780  Prin. Invest.: P AXELRAD  Tech. Officer: GSFC/J LEITNER  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 9007 UNIVERSITY OF COLORADO - BOULDER 3185</b>  SATELLITE ATMOSPHERE &amp; IO TORUS OBSERVATIONS  01/28/2000 - 01/31/2001 FY00: \$92,975 Total: \$92,975  Prin. Invest.: N M SCHNEIDER  Tech. Officer: GSFC/T H MORGAN  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 8709 UNIVERSITY OF COLORADO - BOULDER 3178</b>  LAND USE IMPACTS ON SUBTROPICAL BIOGEOCHEMICAL CYCLES: AN INTEGRATED FIELD-PROCESSING MODELING-REMO  07/29/1999 - 07/31/2001 FY00: \$107,328 Total: \$266,016  Prin. Invest.: G ASNER  Tech. Officer: GSFC/M Y WEI  CASE Category: 39 - ENVIRONMENTALSCI, OTHER</p>	<p><b>NAG 5 9010 UNIVERSITY OF COLORADO - BOULDER 3186</b>  FUV SPECTRA OF EVOLVED LATE-K AND M STARS: MASS LOSS REVISITED AND STELLAR ACTIVITY - FUSE  02/02/2000 - 01/31/2001 FY00: \$67,000 Total: \$67,000  Prin. Invest.: G HARPER  Tech. Officer: GSFC/G SONNEBORN  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 8755 UNIVERSITY OF COLORADO - BOULDER 3179</b>  INTERCALIBRATION OF MESOSPHERE/LOWER THERMOSPHERE WINDS FROM SPACE-BASED &amp; GROUND-BASED MEASUREMENTS  08/12/1999 - 08/14/2001 FY00: \$14,500 Total: \$30,500  Prin. Invest.: J M FORBES  Tech. Officer: GSFC/J BOYCE  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 9018 UNIVERSITY OF COLORADO - BOULDER 3187</b>  HIGH VELOCITY CLOUDS: ORIGIN &amp; ENVIRONMENT - FUSE  02/03/2000 - 01/31/2001 FY00: \$24,540 Total: \$24,540  Prin. Invest.: B GIBSON  Tech. Officer: GSFC/G SONNEBORN  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 8840 UNIVERSITY OF COLORADO - BOULDER 3180</b>  INTERNATIONAL RESEARCH WORKSHOP ON INTEGRATING GIS &amp; ENVIRONMENTAL MODELING: PROBLEMS, PROSPECTS,&amp;  09/22/1999 - 09/30/2000 FY00: \$0 Total: \$10,000  Prin. Invest.: B O PARKS  Tech. Officer: GSFC/B W MEESON  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 5 9026 UNIVERSITY OF COLORADO - BOULDER 3188</b>  SIMULATION &amp; THEORETICAL MODELING OF OBSERVATIONS OF BIPOLAR STRUCTURE &amp; LOW FREQUENCY WAVES IN THE  02/03/2000 - 02/28/2001 FY00: \$79,300 Total: \$79,300  Prin. Invest.: M V GOLDMAN  Tech. Officer: GSFC/M MELLOTT  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 8910 UNIVERSITY OF COLORADO - BOULDER 3181</b>  SMALL-SCALE POLYGONS AND THE HISTORY OF GROUND ICE ON MARS  12/29/1999 - 02/14/2001 FY00: \$58,900 Total: \$58,900  Prin. Invest.: M T MELLON  Tech. Officer: GSFC/J GRANT  CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p><b>NAG 5 9041 UNIVERSITY OF COLORADO - BOULDER 3189</b>  STELLAR WINDS, HYDROGEN WALLS, AND THE LOCAL INTER STELLAR MEDIUM -LISA99  02/22/2000 - 02/28/2001 FY00: \$49,350 Total: \$49,350  Prin. Invest.: B WOOD  Tech. Officer: GSFC/R J OLIVERSEN  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 8912 UNIVERSITY OF COLORADO - BOULDER 3182</b>  BOOK ON HYPERSPECTRAL IMAGING  01/03/2000 - 05/31/2000 FY00: \$76,280 Total: \$76,280  Prin. Invest.: A GOETZ  Tech. Officer: GSFC/D WICKLAND  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 9043 UNIVERSITY OF COLORADO - BOULDER 3190</b>  CLIMATOLOGY OF ARCTIC CANADA  02/22/2000 - 02/28/2001 FY00: \$36,244 Total: \$36,244  Prin. Invest.: K STEFFEN  Tech. Officer: GSFC/W ABDALATI  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 5 8923 UNIVERSITY OF COLORADO - BOULDER 3183</b>  LABORATORY STUDIES OF LOW TEMPERATURE RATE COEFFICIENTS: THE ATMOSPHERIC CHEMISTRY OF THE OUTER PLAN  01/06/2000 - 12/31/2002 FY00: \$103,808 Total: \$103,808  Prin. Invest.: D R LEONE  Tech. Officer: GSFC/R B BEEBE  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 5 9092 UNIVERSITY OF COLORADO - BOULDER 3191</b>  ION ETCHED HOLOGRAPHIC GRATINGS  02/17/2000 - 01/31/2001 FY00: \$75,360 Total: \$75,360  Prin. Invest.: J GREEN  Tech. Officer: GSFC/P CRANE  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 8940 UNIVERSITY OF COLORADO - BOULDER 3184</b>  GALEO MULTI-SPECTRAL ANALYSIS  01/13/2000 - 01/14/2001 FY00: \$27,600 Total: \$27,600  Prin. Invest.: A HENDRIX  Tech. Officer: GSFC/D BOGAN  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 5 9114 UNIVERSITY OF COLORADO - BOULDER 3192</b>  PHASE-A AND BRIDGE PHASE STUDY OF STEREO/WAVES ACCOMMODATION  03/01/2000 - 02/28/2001 FY00: \$28,206 Total: \$28,206  Prin. Invest.: R ERGUN  Tech. Officer: GSFC/M L KAISER  CASE Category: 11 - ASTRONOMY</p>

**NAG 5 9172 UNIVERSITY OF COLORADO - BOULDER 3193**  
 DUSTY PLASMAS IN PLANETARY MAGNETOSPHERES  
 03/08/2000 - 02/28/2001 FY00: \$73,900 Total: \$73,900  
 Prin. Invest.: M HORANYI  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9201 UNIVERSITY OF COLORADO - BOULDER 3194**  
 THERMOSPHERIC ODD-NITROGEN RESPONSE TO AURORAL ENERGY  
 03/09/2000 - 03/14/2001 FY00: \$41,400 Total: \$41,400  
 Prin. Invest.: S SOLOMON  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9304 UNIVERSITY OF COLORADO - BOULDER 3195**  
 CLOSEOUT OF "LABORATORY STUDIES OF THE NUCLEATION, COMPOSITION & REACTIVITY OF AIRCRAFT CONDENSATION  
 03/22/2000 - 03/31/2001 FY00: \$90,236 Total: \$90,236  
 Prin. Invest.: D A TOLBERT  
 Tech. Officer: GSFC/R LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9336 UNIVERSITY OF COLORADO - BOULDER 3196**  
 INVESTIGATION OF RADIO TOMOGRAPHY IMAGING OF THE MAGNETOSPHERE  
 03/27/2000 - 02/28/2001 FY00: \$72,600 Total: \$72,600  
 Prin. Invest.: R ERGUN  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9353 UNIVERSITY OF COLORADO - BOULDER 3197**  
 CHARACTERIZATION AND NUMERICAL SIMULATION OF FAST SOLITARY WAVES IN THE AURORAL IONOSPHERE  
 03/30/2000 - 03/31/2001 FY00: \$72,600 Total: \$72,600  
 Prin. Invest.: R ERGUN  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9404 UNIVERSITY OF COLORADO - BOULDER 3198**  
 GLOBAL & REGIONAL IMPACTS OF MESOSCALE VARIABILITY IN AIR-SEA FLUXES  
 04/10/2000 - 04/30/2001 FY00: \$251,667 Total: \$251,667  
 Prin. Invest.: P J WEBSTER  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9412 UNIVERSITY OF COLORADO - BOULDER 3199**  
 STANDARD GLOBAL SNOW COVER PRODUCTS FROM SATELLITE REMOTE SENSING  
 05/08/2000 - 05/14/2001 FY00: \$94,390 Total: \$94,390  
 Prin. Invest.: R ARMSTRONG  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9421 UNIVERSITY OF COLORADO - BOULDER 3200**  
 ENERGIZATION AND LOSS OF OUTER RADIATION BELT ELECTRONS  
 04/11/2000 - 04/29/2001 FY00: \$49,000 Total: \$49,000  
 Prin. Invest.: X LI  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9443 UNIVERSITY OF COLORADO - BOULDER 3201**  
 CHARGED AEROSOLS  
 04/13/2000 - 05/31/2001 FY00: \$36,800 Total: \$36,800  
 Prin. Invest.: S ROBERTSON  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9448 UNIVERSITY OF COLORADO - BOULDER 3202**  
 KLE ANALYSIS OF SCIGN GPS DATA  
 04/12/2000 - 04/14/2001 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: J B RUNDLE  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9450 UNIVERSITY OF COLORADO - BOULDER 3203**  
 USE OF SATELLITE GRAVIMETRY TO DEVELOP AND TEST A LAND WATER-AND ENERGY-BALANCE MODEL  
 04/12/2000 - 04/30/2001 FY00: \$23,215 Total: \$23,215  
 Prin. Invest.: J WAHR  
 Tech. Officer: GSFC/P HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9474 UNIVERSITY OF COLORADO - BOULDER 3204**  
 THERMOSPHERIC OXYGEN MAPPER (TOM)  
 04/17/2000 - 04/30/2001 FY00: \$179,248 Total: \$179,248  
 Prin. Invest.: A L BETZ  
 Tech. Officer: GSFC/B BETTS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9477 UNIVERSITY OF COLORADO - BOULDER 3205**  
 ADVANCING GLACIOLOGICAL APPLICATIONS OF REMOTE SENSING WITH EO-1  
 04/24/2000 - 04/30/2001 FY00: \$58,580 Total: \$58,580  
 Prin. Invest.: T SCAMBOS  
 Tech. Officer: GSFC/R BINDSCHADLER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9491 UNIVERSITY OF COLORADO - BOULDER 3206**  
 LITHOSPHERIC DYNAMICS OF MARS: WATER, FLOW, AND FAILURE  
 05/17/2000 - 04/14/2001 FY00: \$42,430 Total: \$42,430  
 Prin. Invest.: R E GRIMM  
 Tech. Officer: GSFC/J A GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9537 UNIVERSITY OF COLORADO - BOULDER 3207**  
 FORMATION OF MAGNETIC STRUCTURES AT THE BASE OF THE SOLAR CONVECTION ZONE  
 05/04/2000 - 05/14/2001 FY00: \$51,450 Total: \$51,450  
 Prin. Invest.: N H BRUMMELL  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9568 UNIVERSITY OF COLORADO - BOULDER 3208**  
 REGIONAL INTEGRATED MONITORING SYSTEM FOR THE HYDROLOGY OF THE PAN-ARCTIC LAND MASS  
 05/17/2000 - 05/31/2001 FY00: \$119,748 Total: \$119,748  
 Prin. Invest.: M SERREZE  
 Tech. Officer: GSFC/P HAUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9590 UNIVERSITY OF COLORADO - BOULDER 3209**  
 CHARACTERIZING THE OXIDIZING PROPERTIES OF MARS' POLAR  
 REGIONS  
 05/15/2000 - 05/14/2001 FY00: \$85,000 Total: \$85,000  
*Prin. Invest.:* A R HENDRIX  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9602 UNIVERSITY OF COLORADO - BOULDER 3210**  
 EVALUATION AND ERROR ASSESSMENT OF OPERATIONAL PASSIVE  
 MICROWAVE ALGORITHMS  
 05/17/2000 - 04/30/2001 FY00: \$72,723 Total: \$72,723  
*Prin. Invest.:* J STROEVE  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9631 UNIVERSITY OF COLORADO - BOULDER 3211**  
 MULTI-DECADE OBSERVATIONS OF MARTIAN SURFACE VARIABILITY &  
 SEDIMENT TRANSPORT: INTEGRATED ANALYSES  
 05/26/2000 - 05/31/2001 FY00: \$60,000 Total: \$60,000  
*Prin. Invest.:* S W LEE  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9666 UNIVERSITY OF COLORADO - BOULDER 3212**  
 THE EFFECTS OF CLIMATE REGIME ON TRMM RETRIEVALS  
 05/30/2000 - 05/31/2001 FY00: \$46,667 Total: \$46,667  
*Prin. Invest.:* W K BERG  
*Tech. Officer:* GSFC/R J/L  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9692 UNIVERSITY OF COLORADO - BOULDER 3213**  
 AEROSOL-CLOUD-CLIMATE INTERACTIONS  
 06/21/2000 - 05/31/2001 FY00: \$122,990 Total: \$122,990  
*Prin. Invest.:* K STEFFEN  
*Tech. Officer:* GSFC/J ZWALLY  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9694 UNIVERSITY OF COLORADO - BOULDER 3214**  
 ATMOSPHERIC MODELING AND INFRARED OBSERVATIONS OF A TRANSITING  
 EXTRA-SOLAR PLANET  
 06/27/2000 - 09/30/2001 FY00: \$6,445 Total: \$6,445  
*Prin. Invest.:* L W ESPOSITO  
*Tech. Officer:* GSFC/L D DEMING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9722 UNIVERSITY OF COLORADO - BOULDER 3215**  
 GLOBAL LAND ICE MEASUREMENTS FROM SPACE  
 06/22/2000 - 06/30/2001 FY00: \$110,003 Total: \$110,003  
*Prin. Invest.:* G R SCHARFEN  
*Tech. Officer:* GSFC/J DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9727 UNIVERSITY OF COLORADO - BOULDER 3216**  
 COMPARISON OF QUICKSCAT AND GPS-DERIVED OCEAN SURFACE WINDS  
 07/11/2000 - 07/31/2001 FY00: \$74,683 Total: \$74,683  
*Prin. Invest.:* P AXELRAD  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 5 9753 UNIVERSITY OF COLORADO - BOULDER 3217**  
 RETRIEVAL OF HYDROMETER SIZE DISTRIBUTIONS FROM TRMM FIELD  
 CAMPAIGN PROFILER DOPPLER VELOCITY SPEC  
 06/23/2000 - 06/30/2001 FY00: \$43,156 Total: \$43,156  
*Prin. Invest.:* C R WILLIAMS  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9779 UNIVERSITY OF COLORADO - BOULDER 3218**  
 ORIGIN OF MAGNETIC LINEATIONS ON MARS  
 07/10/2000 - 06/30/2001 FY00: \$50,500 Total: \$50,500  
*Prin. Invest.:* R E GRIMM  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9861 UNIVERSITY OF COLORADO - BOULDER 3219**  
 IMPROVING THE SIMULATION OF SEA ICE LEAD CONDITION & TURBULENT  
 FLUXES USING RGPS PRODUCTS & MERGED  
 08/09/2000 - 07/31/2001 FY00: \$115,130 Total: \$115,130  
*Prin. Invest.:* J MASLANIK  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 10000 UNIVERSITY OF COLORADO - BOULDER 3220**  
 DYNAMICS OF PLANETESIMALS AND PLANETARY ACCRETION  
 09/20/2000 - 08/31/2001 FY00: \$70,000 Total: \$70,000  
*Prin. Invest.:* G STEWART  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1093 UNIVERSITY OF COLORADO - BOULDER 3221**  
 ANALYSIS OF USAF DEFENSE METEOROLOGICAL SATELLITE PROGRAM  
 DATA FOR GLOBAL LIGHTING  
 11/16/1994 - 05/31/1999 FY00: -\$1,956 Total: \$211,328  
*Prin. Invest.:* G S SCHARFEN  
*Tech. Officer:* MSFC/S J GOODMAN, MSFC/H J CHRISTIAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 8 1446 UNIVERSITY OF COLORADO - BOULDER 3222**  
 FUNDAMENTAL PHYSICS USING FREQUENCY STABILIZED LASERS AS  
 OPTICAL ATOMIC CLOCKS  
 02/05/1998 - 01/31/2001 FY00: \$69,000 Total: \$195,000  
*Prin. Invest.:* J HALL  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 13 - PHYSICS

**NAG 8 1475 UNIVERSITY OF COLORADO - BOULDER 3223**  
 INFLUENCE OF SOLUTOCAPILLARY CONVECTION ON MACRO- VOID  
 DEFECT FORMATION IN POLYMERIC MEMBRANES  
 02/03/1998 - 01/31/2002 FY00: \$72,000 Total: \$189,600  
*Prin. Invest.:* A GREENBERG  
*Tech. Officer:* MSFC/P M DOTY  
*CASE Category:* 13 - PHYSICS

**NAG 8 1551 UNIVERSITY OF COLORADO - BOULDER 3224**  
 R/S DESIGN AND CALIBRATION OF AUTONOMOUS COHERENT DOPPLER  
 LIDAR FOR SPACE MISSIONS  
 12/01/1998 - 11/30/2001 FY00: \$0 Total: \$126,185  
*Prin. Invest.:* R FREHLICH  
*Tech. Officer:* MSFC/M KAVAYA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE



## NASA'S UNIVERSITY PROGRAM

COLORADO

**NAG 9 1125 UNIVERSITY OF COLORADO - BOULDER 3225**  
 ROBOTIC FIXTURE FOR SPACE STATION  
 06/30/1999 - 11/30/1999 FY00: \$0 Total: \$50,000  
 Prin. Invest.: L PETERSON  
 Tech. Officer: JSC/C J CULBERT, JSC/C PRICE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 1209 UNIVERSITY OF COLORADO - BOULDER 3226**  
 MULTI WAVELENGTH ANALYSIS OF ASTEROIDS  
 03/01/2000 - 11/30/2000 FY00: \$14,880 Total: \$14,880  
 Prin. Invest.: A R HENDRIX  
 Tech. Officer: JSC/F VILAS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 5 97045 UNIVERSITY OF COLORADO - BOULDER 3227**  
 EXTENSION OF SOLSTICE PHASE B EFFORT  
 02/21/1997 - 07/31/2007 FY00: \$28,322,986 Total: \$43,445,401  
 Prin. Invest.: G ROTTMAN  
 Tech. Officer: GSFC/V GRIFFIN  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAS 5 97046 UNIVERSITY OF COLORADO - BOULDER 3228**  
 LETTER CONTRACT FOR HIRDIS PHASE C/D/E  
 01/17/1997 - 03/31/2008 FY00: \$3,616,000 Total: \$73,289,095  
 Prin. Invest.: J GILLE  
 Tech. Officer: GSFC/L MILAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 97140 UNIVERSITY OF COLORADO - BOULDER 3229**  
 DATA ANALYSIS CEPPAD  
 03/06/1997 - 07/31/1999 FY00: \$0 Total: \$350,000  
 Prin. Invest.: D BAKER  
 Tech. Officer: GSFC/R A HOFFMAN  
 CASE Category: 11 - ASTRONOMY

**NAS 5 97145 UNIVERSITY OF COLORADO - BOULDER 3230**  
 MISSION OPERATIONS, DATA ANALYSIS, AND ALGORITHM MAINTENANCE  
 FOR UARS SOLSTICE  
 03/31/1997 - 11/30/2000 FY00: \$269,032 Total: \$1,296,747  
 Prin. Invest.: G J ROTTMAN  
 Tech. Officer: GSFC/C H JACKMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 98043 UNIVERSITY OF COLORADO - BOULDER 3231**  
 SCIENCE MANAGEMENT FOR COS  
 03/04/1998 - 08/15/2003 FY00: \$5,105,000 Total: \$10,268,000  
 Prin. Invest.: J GREEN  
 Tech. Officer: GSFC/L FEINBERG  
 CASE Category: 11 - ASTRONOMY

**NAS 5 98070 UNIVERSITY OF COLORADO - BOULDER 3232**  
 OPERATION OF SNOW AND ICE DISTRIBUTED ACTIVE ARCHIVE  
 01/29/1998 - 01/31/2003 FY00: \$3,865,494 Total: \$9,867,345  
 Prin. Invest.: R G BARRY, V TROISI, NONE  
 Tech. Officer: GSFC/Q E BARKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 98160 UNIVERSITY OF COLORADO - BOULDER 3233**  
 TOTAL SOLAR IRRADIANCE MISSION (TSIM)  
 07/22/1998 - 09/01/2000 FY00: \$0 Total: \$1,865,940  
 Prin. Invest.: G ROTHMAN  
 Tech. Officer: GSFC/V L GRIFFIN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 8 38779 UNIVERSITY OF COLORADO - BOULDER 3234**  
 MECHANICS OF GRANULAR MATERIALS MICROGRAVITY  
 09/24/1992 - 10/31/2002 FY00: \$844,000 Total: \$3,764,661  
 Prin. Invest.: S STURE  
 Tech. Officer: MSFC/B V GUYNES  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 1 281 UNIVERSITY OF COLORADO - BOULDER 3235**  
 NANOMECHANICS OF ACTIVELY CONTROLLED DEPLOYABLE OPTICS  
 03/11/1998 - 03/10/2001 FY00: \$71,500 Total: \$262,925  
 Prin. Invest.: L D PETERSON  
 Tech. Officer: LARC/M S LAKE  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NCC 2 904 UNIVERSITY OF COLORADO - BOULDER 3236**  
 COMPREHENSION BASED ANALYSIS OF AUTOFLIGHT SYSTEM INTER-  
 FACES  
 06/28/1995 - 10/31/1998 FY00: -\$157 Total: \$241,812  
 Prin. Invest.: P G POLSON  
 Tech. Officer: ARC/E A PALMER, ARC/M SHAFTO  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 2 1052 UNIVERSITY OF COLORADO - BOULDER 3237**  
 CENTER FOR ASTROBIOLOGY  
 08/28/1998 - 06/30/2003 FY00: \$613,779 Total: \$1,052,966  
 Prin. Invest.: B JAKOSKI  
 Tech. Officer: ARC/R A GRAYMES, ARC/W W DOLCI  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 2 1104 UNIVERSITY OF COLORADO - BOULDER 3238**  
 A COMPREHENSIVE-BASED ANALYSIS OF SHARED CONCEPTUAL  
 MODELS OF AVIONICS SYSTEMS  
 04/02/1999 - 11/30/2000 FY00: \$73,208 Total: \$141,919  
 Prin. Invest.: P POISON  
 Tech. Officer: ARC/E A PALMER, ARC/N SMITH  
 CASE Category: 21 - MATHEMATICS

**NCC 2 1112 UNIVERSITY OF COLORADO - BOULDER 3239**  
 COMPREHENSION OF NAVIGATION DIRECTIONS  
 04/14/1999 - 09/30/2001 FY00: \$40,435 Total: \$65,433  
 Prin. Invest.: A F HEALY  
 Tech. Officer: ARC/I BARSHI  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 2 1145 UNIVERSITY OF COLORADO - BOULDER 3240**  
 THE APPLICATION OF ADVANCED CULTIVATION TECHNIQUES IN THE LONG  
 TERM MAINTENANCE OF SPACE FLIGHT....  
 12/01/1999 - 10/14/2000 FY00: \$33,000 Total: \$33,000  
 Prin. Invest.: G HEYENGA  
 Tech. Officer: ARC/M KLUSS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5290 UNIVERSITY OF COLORADO - BOULDER 3241**  
 INTEGRATION & SUPPORT OF NIH-B1 DROSOPHILA MELANOG ASTER  
 NEURAL DEVELOPMENT EXPERIMENT ON SHUTTLE...  
 08/20/1998 - 10/31/1999 FY00: \$0 Total: \$57,959  
 Prin. Invest.: L STODIECK  
 Tech. Officer: ARC/D REISS-BUBENHEIM, ARC/P D SAVAGE  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5300 UNIVERSITY OF COLORADO - BOULDER 3242**  
 THE ROLE OF CLOUDS IN LONG-TERM HABITABILITY OF PLA NETS  
 11/18/1998 - 10/31/2000 FY00: \$54,231 Total: \$146,001  
 Prin. Invest.: O B TOON  
 Tech. Officer: ARC/R E YOUNG, ARC/R M HABERLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5327 UNIVERSITY OF COLORADO - BOULDER 3243**  
 ADDRESSING LONG-TERM USE ISSUES OF CLOSED SPACE FLIGHT PLANT  
 GROWTH SYSTEM  
 06/07/1999 - 10/31/1999 FY00: \$0 Total: \$82,004  
 Prin. Invest.: A HOEHN  
 Tech. Officer: ARC/M H KLISS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5391 UNIVERSITY OF COLORADO - BOULDER 3244**  
 INTEGRATION & SUPPORT OF NIH-B1 DROSOPHILA MELANOG ASTER  
 NEURAL DEVELOPMENT EXPERIMENT ON SHUTTLE 10  
 08/15/2000 - 02/14/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: L STODIECK  
 Tech. Officer: ARC/D REISS-BEBENHEIM  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5401 UNIVERSITY OF COLORADO - BOULDER 3245**  
 THE PROPERTIES OF CLOUDS IN THE ATMOSPHERES OF EARLY EARTH,  
 MARS, & TITAN  
 09/29/2000 - 10/31/2001 FY00: \$15,673 Total: \$15,673  
 Prin. Invest.: O B TOON  
 Tech. Officer: ARC/R E YOUNG  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 3 773 UNIVERSITY OF COLORADO - BOULDER 3246**  
 MICROELECTROMECHANICAL LINEAR ACTUATOR MICROELECTROME-  
 CHANICAL LINEAR ACTUATOR  
 02/15/2000 - 12/31/2000 FY00: \$49,998 Total: \$49,998  
 Prin. Invest.: Y LEE  
 Tech. Officer: GRC/H NGUYEN  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 3 796 UNIVERSITY OF COLORADO - BOULDER 3247**  
 SURFACE COLLISIONS INVOLVING PARTICLES AND MOISTURE (SCIPM)  
 05/16/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: R H DAVIS  
 Tech. Officer: GRC/F P CHARIAMONTE 111  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 5 458 UNIVERSITY OF COLORADO - BOULDER 3248**  
 EO-1 EVALUATION & VERIFICATION FOR APPLICATION TO LAND-USE  
 CHANGE: ATMOSPHERIC CORRECTION, SOIL &  
 02/25/2000 - 12/31/2000 FY00: \$163,778 Total: \$163,778  
 Prin. Invest.: A F GOETZ  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 480 UNIVERSITY OF COLORADO - BOULDER 3249**  
 ANALYSIS OF EO-1, LANDSAT 7, AND AVIRIS FOR ESTIMATING VEGETA-  
 TION STRUCTURE AND FUNCTION IN ARID EC  
 03/20/2000 - 12/31/2000 FY00: \$81,885 Total: \$81,885  
 Prin. Invest.: G P ASNER  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 481 UNIVERSITY OF COLORADO - BOULDER 3250**  
 LOW-COST EVALUATION OF EO-1 HYPERION AND ALI FOR DETECTION &  
 BIOPHYSICAL CHARACTERIZATION OF FOREST  
 03/20/2000 - 03/31/2001 FY00: \$123,829 Total: \$123,829  
 Prin. Invest.: G P ASNER  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 8 131 UNIVERSITY OF COLORADO - BOULDER 3251**  
 BIONERVE SPACE TECHNOLOGIES  
 01/31/1997 - 10/31/2000 FY00: \$2,598,100 Total: \$9,248,100  
 Prin. Invest.: G MORGENTHAUER  
 Tech. Officer: MSFC/S J LAMBING  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 9 65 UNIVERSITY OF COLORADO - BOULDER 3252**  
 SPACE STATION BASED MIRON ACURACY DEPLOYMENT EXPERIMENT  
 07/01/1997 - 10/31/2000 FY00: \$1,000,000 Total: \$1,475,362  
 Prin. Invest.: L PETERSON  
 Tech. Officer: JSC/C PARRA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 1 52182 UNIVERSITY OF COLORADO - BOULDER 3253**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 12/01/1998 - 08/31/2001 FY00: \$10,000 Total: \$54,000  
 Prin. Invest.: M J ARMATYS, P AXELRAD  
 Tech. Officer: LARC/S J KATZBERG  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 2 52234 UNIVERSITY OF COLORADO - BOULDER 3254**  
 A STRUCTURAL ANALYSIS APPROACH TO EXAMINING THE EFFECTS OF  
 DISUSE OSEOPOROSIS  
 08/26/1997 - 07/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: S J SIMSKE  
 Tech. Officer: ARC/R T WHALEN  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 2 52264 UNIVERSITY OF COLORADO - BOULDER 3255**  
 MODELING AEROSOL NUCLEATION IN THE PRESENCE OF CLOUDS  
 06/23/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: O TOON  
 Tech. Officer: ARC/A S ACKERMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 2 52270 UNIVERSITY OF COLORADO - BOULDER 3256**  
 HYDROCARBON NUCLEATION ON THOLINS: APPLICATIONS TO TITAN  
 08/29/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: M A TOLBERT  
 Tech. Officer: ARC/C P MCKAY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NGT 5 47 UNIVERSITY OF COLORADO - BOULDER 3257**  
 INVESTIGATION OF HARDWARE AND ALGORITHM ARCHITECTURE AND  
 HE0 ORBITS  
 06/23/1997 - 06/30/2001 FY00: \$22,000 Total: \$88,000  
 Prin. Invest.: P AXELRAD  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 5 49 UNIVERSITY OF COLORADO - BOULDER 3258**  
 OUTER ELECTRON BELT MODELING BY ASSIMILATION OF RE DATA  
 06/23/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D N BAKER  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 11 - ASTRONOMY

**NGT 5 74 UNIVERSITY OF COLORADO - BOULDER 3259**  
 GSRP TRAINING GRANT FOR ELLEN RIDDLE. TITLE: USE OF OPTIMIZA-  
 TION METHODS IN SMALL SATELLITE  
 06/12/1998 - 07/31/1999 FY00: -\$205 Total: \$21,795  
 Prin. Invest.: G MORGENTHAUER  
 Tech. Officer: GSFC/G SOFFEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 80 UNIVERSITY OF COLORADO - BOULDER 3260**  
 THE STRUCTURE AND DEVELOPMENT OF SUPERNOVA REMNANT 1987A  
 (STUDENT): ELI MICHAEL  
 05/12/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: R MCCRAY  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 13 - PHYSICS

**NGT 5 93 UNIVERSITY OF COLORADO - BOULDER 3261**  
 USE OF REMOTE SENSING IMAGERY IN BIOGEOCHEMICAL MODELS TO  
 PREDICT TRACE GAS EMISSIONS & CROP YIELD  
 06/15/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: N KHATIB  
 Tech. Officer: GSFC/J L PRIVETTE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30023 UNIVERSITY OF COLORADO - BOULDER 3262**  
 EL NINO PREDICTION USING HEURISTIC ALGORITHMS  
 10/14/1996 - 11/30/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D WEBSTER  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30025 UNIVERSITY OF COLORADO - BOULDER 3263**  
 PROPOSAL FOR THE STUDY AND MODELING OF THE MAGMATIC MECH-  
 ANISM AT LONG VALLEY CALDERA, CALIFORNIA  
 10/17/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J B RUNDLE  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NGT 5 30026 UNIVERSITY OF COLORADO - BOULDER 3264**  
 SCALABLE AND ADAPTIVE FILE MANAGEMENT IN NETWORKS  
 10/17/1996 - 03/31/2000 FY00: \$0 Total: \$66,655  
 Prin. Invest.: D WEISMAN  
 Tech. Officer: HQ/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30072 UNIVERSITY OF COLORADO - BOULDER 3265**  
 PASSIVE MICROWAVE MEASUREMENTS OF ARCTIC CLOUDS  
 09/09/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J CURRY  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30076 UNIVERSITY OF COLORADO - BOULDER 3266**  
 ATMOSPHERIC LIFETIMES OF PEROXY NITRATES  
 STUDENT - EDW  
 09/09/1997 - 02/28/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: A R RAVISHANKARA  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30128 UNIVERSITY OF COLORADO - BOULDER 3267**  
 SPATIAL VARIABILITY OF CLOUD CHARACTERISTICS & SURFACE RADI-  
 ATION FLUXES FOR SHEBA/FIRE III  
 10/01/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J CURRY  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30136 UNIVERSITY OF COLORADO - BOULDER 3268**  
 LABORATORY STUDIES OF CIRRUS CLOUD FORMATION MECHANISMS/  
 STUDENT: FORTIN  
 09/04/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: M TOLBERT  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30155 UNIVERSITY OF COLORADO - BOULDER 3269**  
 COMPARISONS OF THREE-DIMENSIONAL GENERAL CIRCULATION MODEL  
 SIMULATIONS OF THE DESERT AEROSOL LIFE  
 08/28/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: B TOON, COLORADO  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30170 UNIVERSITY OF COLORADO - BOULDER 3270**  
 ATMOSPHERIC CIRCULATION AND REGIONAL SEA ICE SENSITIVITY IN THE  
 ARCTIC STUDENT: LYNCH CULLATHER  
 09/04/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: A H LYNCH  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30180 UNIVERSITY OF COLORADO - BOULDER 3271**  
 SPATIAL AND TEMPORAL RESPONSE TO ANTHROPOGENIC NITROGEN  
 DEPOSITION IN A HETEROGENEOUS ROCKY MOUNTAIN  
 08/12/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: C A WESSMAN  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30209 UNIVERSITY OF COLORADO - BOULDER 3272**  
 IN SITU MEASUREMENTS OF CARBON DIOXIDE IN THE UPPER TROPO-  
 SPHERE & LOWER STRATOSPHERE/STUDENT GAT  
 08/18/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: L M AVALONE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30345 UNIVERSITY OF COLORADO - BOULDER 3273**  
 LINKING LANDSAT TM DATA & EVAPOTRANSPIRATION IN TWO HUMID  
 TROPICAL WATERSHEDS IN PANAMA/STUDENT AL  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: G ASNER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30348 UNIVERSITY OF COLORADO - BOULDER 3274**  
 REGIONAL IMPACTS OF WOODLAND EXPANSION ON NITROGEN OXIDE  
 EMISSIONS FROM TEXAS SAVANNAS: COMBINING  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: G ASNER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30363 UNIVERSITY OF COLORADO - BOULDER 3275**  
 LABORATORY STUDIES OF ICE NUCLEATION FROM INTERNALLY MIXED  
 SULFURIC ACID/MINERALAEROSOL PARTICLES/  
 08/24/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: M A TOLBERT  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40028 UNIVERSITY OF COLORADO - BOULDER 3276**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 12/31/1996 - 01/31/2001 FY00: \$475,000 Total: \$1,867,748  
 Prin. Invest.: E R HANSEN  
 Tech. Officer: GSFC/D D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50102 UNIVERSITY OF COLORADO - BOULDER 3277**  
 PROPOSAL FOR THE DEVELOPMENT, EXPLORATION, AND VALUATION OF A  
 FULLY THREE-DIMENSIONAL EARTHQUAKE MODEL  
 09/06/1997 - 02/28/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J RUNDLE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50106 UNIVERSITY OF COLORADO - BOULDER 3278**  
 DETERMINATION OF OPTICAL CONSTANTS FOR THE REMOTE STRATO-  
 SPHERIC CLOUDS AND GLOBALAEROSOLS  
 09/06/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: M TOLBERT  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50141 UNIVERSITY OF COLORADO - BOULDER 3279**  
 INVESTIGATIONS OF A P MODE PROPAGATION IN THE SOLAR  
 09/10/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: E G ZWIBEL  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50176 UNIVERSITY OF COLORADO - BOULDER 3280**  
 A STUDY OF THE HOT COMPONENT OF THE LOCAL INTERSTELLAR  
 MEDIUM  
 05/22/1998 - 06/30/2001 FY00: \$0 Total: \$44,000  
 Prin. Invest.: J C GREEN/MCLEAN  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50194 UNIVERSITY OF COLORADO - BOULDER 3281**  
 STELLAR EVOLUTION IN STARBURST GALAXIES  
 06/05/1998 - 07/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: P S CONTI  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50197 UNIVERSITY OF COLORADO - BOULDER 3282**  
 MARTIAN SURFACE MAGNETIC FIELD  
 06/11/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: F BAGENAL  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50221 UNIVERSITY OF COLORADO - BOULDER 3283**  
 IMPLICATIONS OF LAND-USE LEGACIES IN THE DUKE FOREST  
 ASSESSING CHANGES IN LAND COVER, FOREST PRODUCTION  
 09/29/1998 - 08/31/2000 FY00: \$0 Total: \$22,923  
 Prin. Invest.: D URBAN  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50232 UNIVERSITY OF COLORADO - BOULDER 3284**  
 TIDES AND ZONAL MEAN FLOW FROM SATELLITE-BASED MEASUREMENTS:  
 ANALYSIS TECHNIQUES  
 05/27/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: J FORBES  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50237 UNIVERSITY OF COLORADO - BOULDER 3285**  
 MODELING THE POST-RUNAWAY GROWTH OF TERRESTRIAL PLANETS  
 (STUDENT: CRAIG AGNOR)  
 05/27/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: R CANUP  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50241 UNIVERSITY OF COLORADO - BOULDER 3286**  
 PROBING CORONAL STRUCTURE & VARIABILITY IN ACTIVE BINARY  
 SYSTEMS  
 06/03/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: A BROWN, NONE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50242 UNIVERSITY OF COLORADO - BOULDER 3287**  
 MAPPING THE DETAILED STRUCTURE OF THE LOCAL INTERSTELLAR  
 MEDIUM  
 06/03/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: J LINSKY  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50271 UNIVERSITY OF COLORADO - BOULDER 3288**  
 LANDSCAPE DYNAMICS IN THE ARID SOUTHWEST: INTERACTIONS OF  
 ECOSYSTEM PATTERN & PROCESS THROUGH TIME  
 08/12/1999 - 08/31/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: C WESSMAN  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50273 UNIVERSITY OF COLORADO - BOULDER 3289**  
 ATMOSPHERIC MODELING AND INFRARED OBSERVATIONS OF TRANSITING  
 EXTRASOLAR PLANET/STUDENT: L JEREMY RI  
 06/08/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: L ESPOSITO  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50294 UNIVERSITY OF COLORADO - BOULDER 3290**  
 DUST DYNAMICS IN PHOTOELECTRON LAYERS NEAR SURFACE IN SPACE/  
 STUDENT: AMANDA SICKAFOOSE  
 06/26/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J E COLDWELL  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50304 UNIVERSITY OF COLORADO - BOULDER 3291**  
 FABRICATION, TESTING, AND INTEGRATION OF POLYMER-BASED MICROFLU-  
 IDIC DEVICES FOR BIOMEDICAL APPLICATIONS  
 07/06/2000 - 08/31/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: R H DAVIS  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50320 UNIVERSITY OF COLORADO - BOULDER 3292**  
 SATELLITE GRAVITY & LARGE-SCALE HYDROLOGY/STUDENT: SEAN  
 SWENSON  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J WAHR  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 9 22 UNIVERSITY OF COLORADO - BOULDER 3293**  
 REMOTELY DETERMINING MATERIAL TYPE OF ORBITAL DEBRIS  
 05/30/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: L NELSON  
 Tech. Officer: JSC/D G SICKOREZ  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT10 52624 UNIVERSITY OF COLORADO - BOULDER 3294**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT  
 RESEARCH PROGRAM  
 07/19/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D HOEHN  
 Tech. Officer: KSC/R WHEELER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 8384 UNIVERSITY OF COLORADO - DENVER 3295**  
 4 CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS  
 05/24/1999 - 05/31/2000 FY00: \$0 Total: \$1,000  
 Prin. Invest.: A SADUN  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NCC 2 1176 UNIV OF COLORADO AT COLORADO SPRINGS 3296**  
 DEVELOPMENT OF THE PSUEDO PILOTED AIRCRAFT SIMULATION (PPAS)  
 05/05/2000 - 12/31/2000 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: P J GORDOR  
 Tech. Officer: ARC/T F ROMER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1918 UNIVERSITY OF DENVER 3297**  
 COLLECTION AND ANALYSIS OF AIRCRAFT EMITTED PARTICLES  
 04/25/1997 - 01/31/1999 FY00: -\$168 Total: \$52,437  
 Prin. Invest.: J C WILSON  
 Tech. Officer: LARC/B E ANDERSON, LARC/W R COFER, III  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 351 UNIVERSITY OF DENVER 3298**  
 INFRARED MEASUREMENTS OF ATMOSPHERIC CONSTITUENTS  
 12/12/1985 - 12/31/1999 FY00: \$0 Total: \$5,447,436  
 Prin. Invest.: D G MURCRAY  
 Tech. Officer: ARC/R S HIPSKIND, ARC/S S WEGENER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1229 UNIVERSITY OF DENVER 3299**  
 ANALYSIS OF AIRCRAFT PLUMES ENCOUNTERED BY THE NASA ER-2 IN  
 THE TROPOSPHERE  
 06/08/1998 - 05/31/1999 FY00: \$0 Total: \$55,505  
 Prin. Invest.: J C WILSON  
 Tech. Officer: ARC/R S HIPSKING, ARC/E P CONDON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1242 UNIVERSITY OF DENVER 3300**  
 LABORATORY TESTING & CALIBRATION OF THE NUCLEI-MODE AEROSOL  
 SIZE SPECTROMETER  
 07/28/1998 - 07/31/1999 FY00: -\$107 Total: \$22,161  
 Prin. Invest.: C A BROCK  
 Tech. Officer: ARC/R S HIPSKING  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1269 UNIVERSITY OF DENVER 3301**  
 MEASUREMENTS OF NUCLEATION-MODE PARTICLE SIZE DISTRIBUTIONS  
 IN AIRCRAFT PLUMES DURING SULFUR6  
 09/21/1998 - 08/31/1999 FY00: \$0 Total: \$40,330  
 Prin. Invest.: C A BROCK  
 Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1297 UNIVERSITY OF DENVER 3302**  
 IN SITU AEROSOL SIZE DISTRIBUTION MEASUREMENTS FROM THE ER-2  
 SAGE III VALIDATION & STUDIES OF OZONE  
 03/09/1999 - 01/31/2001 FY00: \$278,000 Total: \$447,000  
 Prin. Invest.: J C WILSON  
 Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1301 UNIVERSITY OF DENVER 3303**  
 MEASUREMENTS OF PARTICLE SIZE DISTRIBUTIONS FROM 4 - 2000NM  
 DIAMETER ON THE DC-8 FOR THE SAGE III OZONE  
 03/06/1999 - 01/14/2001 FY00: \$64,849 Total: \$97,561  
 Prin. Invest.: J M REEVES, J C WILSON  
 Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1305 UNIVERSITY OF DENVER 3304**  
 IN SITU AEROSOL SIZE DISTRIBUTION MEASUREMENTS FROM THE WB57F  
 FOR ACCENT 1999  
 03/12/1999 - 02/28/2001 FY00: \$0 Total: \$80,000  
 Prin. Invest.: J C WILSON, NONE  
 Tech. Officer: ARC/E P CONDON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1391 UNIVERSITY OF DENVER 3305**  
 INFRARED REMOTE SENSING OF ATMOSPHERIC CONSTITUENTS  
 01/19/2000 - 12/31/2000 FY00: \$377,128 Total: \$377,128  
 Prin. Invest.: F MURCRAY  
 Tech. Officer: ARC/E CONDON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 3386 UNIVERSITY OF DENVER 3306**  
 CALIBRATION AND SCIENTIFIC SUPPORT OF LENA FOR THE IMAGE  
 SATELLITE PROGRAM  
 09/04/1996 - 07/31/2000 FY00: \$0 Total: \$264,598  
 Prin. Invest.: T A STEPHEN  
 Tech. Officer: GSFC/M SMITH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3411 UNIVERSITY OF DENVER 3307**  
 ISO OBSERVATIONS OF CIRCUMSTELLAR DISKS: CLUES TO OF PLANETS  
 09/19/1996 - 08/31/1999 FY00: \$0 Total: \$237,000  
 Prin. Invest.: R E STENCEL  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6467 UNIVERSITY OF DENVER 3308**  
 NEAR IR BALLOON-BORNE MEASUREMENTS IN SUPPORT OF SAGE III  
 AND MOPITT  
 11/12/1997 - 09/30/2000 FY00: \$0 Total: \$161,254  
 Prin. Invest.: F J MURCRAY  
 Tech. Officer: GSFC/D O STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6679 UNIVERSITY OF DENVER 3309**  
 GROUND BASED FTIR SOLAR SPECTRAL MEASUREMENTS IN SUPPORT  
 OF MOPITT & SAGE III  
 12/12/1997 - 12/31/2001 FY00: \$89,974 Total: \$179,938  
 Prin. Invest.: F J MURCRAY  
 Tech. Officer: GSFC/D O STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 1 96017 UNIVERSITY OF DENVER 3310**  
 COMPARISON OF INSITU AEROSOL SIZE DISTRIBUTIONS ACQUIRED IN THE  
 UPPER TROPOSPHERE AND LOWER  
 08/02/1996 - 08/08/2000 FY00: \$0 Total: \$71,000  
 Prin. Invest.: J C WILSON  
 Tech. Officer: LARC/G MADDREA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 48 UNIVERSITY OF DENVER 3311**  
 COLLABORATIVE STUDY OF HIGH RESOLUTION INFRARED ATMOSPHERIC  
 SPECTRA  
 11/26/1980 - 11/30/1999 FY00: \$0 Total: \$0  
 Prin. Invest.: A GOLDMAN, D G MURCRAY  
 Tech. Officer: LARC/C P RINSLAND, LARC/R K SEALS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 313 UNIVERSITY OF DENVER 3312**  
 ANALYSIS OF ATMOSPHERIC MEASUREMENTS IN SUPPORT OF THE  
 NETWORK FOR THE DETECTION OF STRATOSPHERIC CH  
 07/22/1998 - 09/30/2001 FY00: \$0 Total: \$20,986  
 Prin. Invest.: F J MURCRAY  
 Tech. Officer: LARC/C P RINSLAND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 365 UNIVERSITY OF DENVER 3313**  
 COLLABORATIVE STUDY FOR ANALYSIS OF HI RESOLUTION INFRARED  
 ATMOSPHERIC SPECTRA BETWEEN LARC & U DENVER  
 01/10/2000 - 11/30/2000 FY00: \$52,000 Total: \$52,000  
 Prin. Invest.: A GOLDMAN  
 Tech. Officer: LARC/C P RINSLAND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 506 UNIVERSITY OF DENVER 3314**  
 "THE LENA INSTRUMENT ABOARD THE IMAGE SATELLITE"  
 07/20/2000 - 07/31/2001 FY00: \$20,006 Total: \$20,006  
 Prin. Invest.: T M STEPHEN  
 Tech. Officer: GSFC/T MOORE  
 CASE Category: 11 - ASTRONOMY

**NCC 8 176 UNIVERSITY OF DENVER 3315**  
 INTERNATIONAL SPACE STATION METEOROID/ORBITAL DEBRIS HAZARD  
 ASSESSMENT AND SOFTWARE DEVELOPMENT.  
 12/22/1998 - 12/21/2001 FY00: \$282,711 Total: \$482,711  
 Prin. Invest.: J E WILLIAMSSEN  
 Tech. Officer: MSFC/G D OLSEN  
 CASE Category: 42 - AERONAUTICAL ENGR

**NGT 8 52894 UNIVERSITY OF DENVER 3316**  
 TEMPERATURE EFFECTS ON METEOROID DEBRIS PROTECTIVE STRUC-  
 TURES  
 08/29/2000 - 08/31/2003 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R AMME  
 Tech. Officer: MSFC/S NASH-STEVENSON  
 CASE Category: 11 - ASTRONOMY

**NSG 1432 UNIVERSITY OF DENVER 3317**  
 GROUND MONITORING OF ATMOSPHERIC CONSTITUENTS BY HIGH  
 RESOLUTION INFRARED SOLAR SPECTROSCOPY  
 07/08/1977 - 04/10/1999 FY00: \$1 Total: \$1,322,701  
 Prin. Invest.: D G MURCRAY  
 Tech. Officer: LARC/C P RINSLAND, LARC/M A SMITH  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 9 1257 UNIVERSITY OF SOUTHERN COLORADO 3318**  
 DEVELOPMENT OF MULTI CHANNEL HIGH FREQUENCY QRS ELECTRO-  
 CARDIOGRAPH  
 08/25/2000 - 05/25/2001 FY00: \$15,000 Total: \$15,000  
 Prin. Invest.: J DEPALMA  
 Tech. Officer: JSC/T T SCHLEGEL  
 CASE Category: 56 - MEDICAL

**NGT 1 52209 UNIVERSITY OF SOUTHERN COLORADO 3319**  
 GRADUATE STUDENT RESEARCH PROGRAM (GSRP) YEAR 1  
 05/25/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: L M GARRETT  
 Tech. Officer: LARC/A E MOTLEY, LARC/L D THOMAS  
 CASE Category: 41 - AERONAUTICAL ENGR

## CONNECTICUT

**NAG 5 5246 CENTRAL CONNECTICUT STATE UNIVERSITY 3320**  
 NAG5-5246 LASER RADAR STUDIES PI PROF. NIMMI PARIKH  
 04/12/1999 - 01/31/2000 FY00: \$0 Total: \$13,977  
 Prin. Invest.: N C PARIKH  
 Tech. Officer: GSFC/F SCHMIDLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 8650 FAIRFIELD UNIVERSITY 3321**  
 OPTIMIZING PERFORMANCE OF FAR-INFRARED PHOTOCONDUCTORS:  
 NEW APPROACH FOR INTERPRETATION & CALIBRATION  
 07/29/1999 - 07/31/2001 FY00: \$68,991 Total: \$151,146  
 Prin. Invest.: N HAEGEL  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8048 TRINITY COLLEGE 3322**  
 RETRIEVAL OF JOVIAN ATMOSPHERIC STRUCTURE FROM GALILEO NIMS  
 01/14/1999 - 06/30/2001 FY00: \$36,154 Total: \$47,205  
 Prin. Invest.: D WEIR  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 2 1434 UNIV. OF CONNECTICUT HEALTH CENTER 3323**  
 USE OF GFP TRANSGENES TO ASSESS OSTEOGENESIS PROMOTION  
 IN INTACT BONE  
 08/29/2000 - 08/31/2001 FY00: \$87,500 Total: \$87,500  
 Prin. Invest.: D W ROWE  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 6316 UNIV. OF CONNECTICUT HEALTH CENTER 3324**  
 TRANSGENIC MARKERS OF BONE CELL LINEAGE PROGRESSION  
 09/29/1997 - 03/31/2001 FY00: \$87,672 Total: \$369,456  
 Prin. Invest.: D ROWE  
 Tech. Officer: GSFC/M AVERNER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 3 1870 UNIVERSITY OF CONNECTICUT 3325**  
 EVAPORATION, BOILING AND CONDENSATION ON/IN CAPILLARY  
 STRUCTURES OF HIGH HEAT FLUX TWO-PHASE DEVICES  
 05/09/1996 - 05/31/2001 FY00: \$84,000 Total: \$360,000  
 Prin. Invest.: A FAGHIR Prin. Invest.: NONE  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 5 7654 UNIVERSITY OF CONNECTICUT 3326**  
 ECOPHYSIOLOGY OF SUBPOPULATIONS OF ALEXANDRIUM TAMARENSE  
 08/25/1998 - 08/31/2001 FY00: \$50,000 Total: \$150,000  
 Prin. Invest.: C ROESLER  
 Tech. Officer: GSFC/J W MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7813 UNIVERSITY OF CONNECTICUT 3327**  
 CALIBRATION OF GROUND-BASED WEATHER RADAR SYSTEMS FROM  
 TRMM SPACE-BASED RADAR OBSERVATIONS: A DEMONSTRATION  
 11/12/1998 - 12/31/2000 FY00: \$57,845 Total: \$157,845  
 Prin. Invest.: E N ANAGNOSTOU  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7915 UNIVERSITY OF CONNECTICUT 3328**  
 DECIPHERING THE MOLECULAR RECORD OF EARLY EVOLUTION  
 12/09/1998 - 11/30/2000 FY00: \$47,100 Total: \$97,100  
 Prin. Invest.: P J GOGARTEN  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8602 UNIVERSITY OF CONNECTICUT 3329**  
 DEVELOPMENT OF PLANETARY REMOTE SENSING TECHNOLOGY FOR  
 APPLICATIONS TO TELEFORENSICS  
 06/21/1999 - 06/30/2000 FY00: \$1,500 Total: \$21,500  
 Prin. Invest.: J S SCHWEITZER  
 Tech. Officer: GSFC/J I TROMBKA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8636 UNIVERSITY OF CONNECTICUT 3330**  
 UNDERSTANDING THE ERROR CHARACTERISTICS OF PRECIPITATION  
 ESTIMATES FROM SPACE-BASED OBSERVING SYSTEMS  
 07/10/1999 - 09/30/2000 FY00: \$102,022 Total: \$124,428  
 Prin. Invest.: E N ANAGNOSTOU  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9639 UNIVERSITY OF CONNECTICUT 3331**  
 INVESTIGATING THE ADEQUACY OF TRMM PRECIPITATION RADAR  
 OBSERVATIONS FOR CALIBRATING GROUND-BASED WEATHER  
 06/02/2000 - 11/30/2000 FY00: \$57,155 Total: \$57,155  
 Prin. Invest.: E N ANAGNOSTOU  
 Tech. Officer: GSFC/R J LAWRENECE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1428 UNIVERSITY OF CONNECTICUT 3332**  
 BOSE-EINSTEIN CONDENSATE AND ATOM LASER: COHERENCE AND  
 OPTICAL PROPERTIES  
 02/02/1998 - 01/31/2003 FY00: \$67,000 Total: \$176,000  
 Prin. Invest.: J JAVANAINEN  
 Tech. Officer: MSFC/D HUBBARD  
 CASE Category: 13 - PHYSICS

**NAG 9 1243 UNIVERSITY OF CONNECTICUT 3333**  
 RESEARCH GRANT  
 07/07/2000 - 09/01/2001 FY00: \$21,998 Total: \$21,998  
 Prin. Invest.: M MOREAU  
 Tech. Officer: JSC/F MARTIN, JSC/D SICKOREZ  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG10 246 UNIVERSITY OF CONNECTICUT 3334**  
 STUDY EFFECTS OF MICROGRAVITY ON EXPRESSION OF AUXIN  
 08/01/1998 - 07/31/1999 FY00: \$0 Total: \$178,445  
 Prin. Invest.: Y LI  
 Tech. Officer: GSFC/G ETHERAGE  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG13 99001 UNIVERSITY OF CONNECTICUT 3335**  
 BETTER LAND USE PLANNING FOR SUBURBANIZING NEIGHBORHOODS,  
 CREATING A NETWORK OF GEOSPATIAL INFORMATION  
 02/19/1999 - 02/18/2002 FY00: \$0 Total: \$1,099,576  
 Prin. Invest.: D CIVCO  
 Tech. Officer: SSC/C HILL  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NCC 2 1067 UNIVERSITY OF CONNECTICUT 3336**  
 PRODUCTION & CONSUMPTION OF BIOGENIC GASES IN MICROBIAL MATS  
 10/19/1998 - 09/30/2001 FY00: \$58,343 Total: \$108,359  
*Prin. Invest.:* P T VISSCHER  
*Tech. Officer:* ARC/B M BEBOUT, ARC/D J DES MARIAS  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5245 UNIVERSITY OF CONNECTICUT 3337**  
 VERIFICATION AND VALIDATION OF HIGH INTEGRITY SOFTWARE FOR  
 SAFETY-CRITICAL APPLICATION  
 12/04/1997 - 11/30/1999 FY00: -\$3,346 Total: \$96,539  
*Prin. Invest.:* K R PATTIPATI  
*Tech. Officer:* ARC/A PATTERSON-HIN, ARC/D KULKARNI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5328 UNIVERSITY OF CONNECTICUT 3338**  
 VERIFICATION & VALIDATION OF HIGH INTEGRITY SOFTWARE FOR SAFE-  
 TY-CRITICAL APPLICATIONS  
 06/25/1999 - 04/30/2000 FY00: \$0 Total: \$20,085  
*Prin. Invest.:* K R PATTIPATI  
*Tech. Officer:* ARC/A F PATTERSON-HINE  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 3 789 UNIVERSITY OF CONNECTICUT 3339**  
 HEAT TRANSFER IN ROTATING THIN LIQUID FILMS INCLUDING NUCLEATE  
 BOILING  
 04/07/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* D FAGHRI  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 5 82 UNIVERSITY OF CONNECTICUT 3340**  
 PREDICTING THE DISTRIBUTION OF BIODIVERSITY: INTEGRATING  
 REMOTE SENSING TECHNOLOGY AND FIELD-BASED  
 05/11/1999 - 07/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* R COLWELL *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 54 - ENVIRONMENTAL BIOLOGY

**NCC 5 390 UNIVERSITY OF HARTFORD 3341**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 - 05/31/2001 FY00: \$225,000 Total: \$450,000  
*Prin. Invest.:* S TOWNSEND  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40031 UNIVERSITY OF HARTFORD 3342**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 12/30/1996 - 02/28/2001 FY00: \$212,500 Total: \$807,500  
*Prin. Invest.:* S L TOWNSEND  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1269 UNIVERSITY OF NEW HAVEN 3343**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY00: \$0 Total: \$45,197  
*Prin. Invest.:* S D BOGAN  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 4821 WESLEYAN UNIVERSITY 3344**  
 PHOTOMETRIC STUDIES OF T TAURI STARS  
 06/18/1997 - 05/31/2001 FY00: \$54,000 Total: \$200,400  
*Prin. Invest.:* D HERBST  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9064 WESLEYAN UNIVERSITY 3345**  
 MEASURING THE GALACTIC POTENTIAL WITH NASA'S SPACE INTERFER-  
 OMETRY MISSION - LTSA 99  
 02/29/2000 - 02/14/2001 FY00: \$45,170 Total: \$45,170  
*Prin. Invest.:* K V JOHNSTON  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 21 - MATHEMATICS

**NAG 2 948 YALE UNIVERSITY 3346**  
 SYNAPTOGENESIS IN MICROGRAVITY  
 12/20/1994 - 08/31/2000 FY00: \$118,000 Total: \$672,933  
*Prin. Invest.:* H S KESHISHIAN  
*Tech. Officer:* ARC/D REISS-BUBENHEIM, ARC/W E HINDS  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1433 YALE UNIVERSITY 3347**  
 EFFECTS OF SPACE FLIGHT ON DROSOPHILA NEURAL DEVELOPMENT  
 08/29/2000 - 08/31/2001 FY00: \$181,220 Total: \$181,220  
*Prin. Invest.:* H S KESHISHIAN  
*Tech. Officer:* ARC/D R BUBENHEIM, ARC/M F VASQUEZ  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1935 YALE UNIVERSITY 3348**  
 RHEOLOGY OF CONCENTRATED EMULSIONS  
 08/05/1996 - 05/31/2001 FY00: \$76,000 Total: \$470,000  
*Prin. Invest.:* M LOEWENBERG  
*Tech. Officer:* GRC/B SINGH  
*CASE Category:* 43 - CHEMICAL ENGR

**NAG 3 1939 YALE UNIVERSITY 3349**  
 COMPUTATIONAL & EXPERIMENTAL STUDY OF LAMINAR DIFFUSION  
 FLAMES IN A MICROGRAVITY ENVIRONMENT  
 08/05/1996 - 11/30/2000 FY00: \$109,000 Total: \$444,000  
*Prin. Invest.:* M B LONG, M D SMOOKE  
*Tech. Officer:* GRC/K J WEILAND, GRC/H D ROSS  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 1951 YALE UNIVERSITY 3350**  
 DESIGN/INTERPRETATION OF MICROGRAVITY EXPERIMENT TO OBTAIN  
 FLUID/SOLID BOUNDARY CONDITIONS IN NON-I  
 08/14/1996 - 08/31/2001 FY00: \$100,001 Total: \$400,000  
*Prin. Invest.:* D E ROSNER  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 43 - CHEMICAL ENGR

**NAG 3 2147 YALE UNIVERSITY 3351**  
 SCIENTIFIC STUDIES AND TECHNOLOGY POTENTIAL OF ACOUSTO-ELEC-  
 TRICALLY GENERATED DROP OR PARTICLE CLUS  
 03/30/1998 - 10/06/1999 FY00: \$0 Total: \$100,000  
*Prin. Invest.:* R E APPEL  
*Tech. Officer:* GRC/R B ROGERS  
*CASE Category:* 13 - PHYSICS



**NAG 3 2262** **YALE UNIVERSITY** **3352**  
 COMPUTATIONAL AND EXPERIMENTAL STUDY OF ENERGETIC MATERIALS  
 IN A COUNTERFLOW MICROGRAVITY ENVIRONMENT  
 04/27/1999 - 04/06/2003 FY00: \$81,497 Total: \$127,137  
 Prin. Invest.: M D SMOOKE  
 Tech. Officer: GRC/D L URBAN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2377** **YALE UNIVERSITY** **3353**  
 STUDIES OF THE DYNAMIC CONTROL AND EVAPORATION OF THREE  
 DIMENSIONAL DROPLET ARRAYS  
 04/07/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: R E APFEL  
 Tech. Officer: GRC/R ROGERS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2425** **YALE UNIVERSITY** **3354**  
 EFFECT OF STRUCTURE - DEPENDENT INTERACTIONS ON THE FORMA-  
 TION OF COLLOIDAL AGGREGATES AND NUCLEI  
 05/17/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D L GRANT  
 Tech. Officer: GRC/B MOTIL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2477** **YALE UNIVERSITY** **3355**  
 FLOWS OF WET FOAMS AND CONCENTRATED EMULSIONS FLOWS OF WET  
 FOAMS AND CONCENTRATED EMULSIONS  
 07/24/2000 - 11/30/2003 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: D LOEWENBERG  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3853** **YALE UNIVERSITY** **3356**  
 CLIMATE CHANGE AND HUMAN RESPONSE IN THE SEMI-ARID  
 (148-65-80-27)  
 12/16/1996 - 07/31/2000 FY00: \$0 Total: \$1,195,852  
 Prin. Invest.: R B SMITH  
 Tech. Officer: GSFC/A J TUYAHOV  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 3972** **YALE UNIVERSITY** **3357**  
 COASTAL WINDS AND ISLAND WAKES  
 03/05/1997 - 03/31/2000 FY00: -\$1,408 Total: \$122,192  
 Prin. Invest.: R B SMITH  
 Tech. Officer: GSFC/S H GOGINENI  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 5255** **YALE UNIVERSITY** **3358**  
 X-RAY SINGLE-PHOTON SPECTROMETERS X-RAY SINGLE-PHOTON  
 SPECTROMETERS  
 02/18/2000 - 02/03/2003 FY00: \$165,000 Total: \$165,000  
 Prin. Invest.: D E PROBER  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 6404** **YALE UNIVERSITY** **3359**  
 OBSERVATIONAL STUDIES OF DYNAMICAL EFFECTS IN GLOBULAR CLUS-  
 TERS  
 11/04/1997 - 08/31/2000 FY00: \$108,360 Total: \$312,360  
 Prin. Invest.: C BAILYN  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6691** **YALE UNIVERSITY** **3360**  
 A BROAD-BAND, SIMULTANEOUS OBSERVATION OF CYGNUS X-1  
 12/10/1997 - 11/30/1999 FY00: \$0 Total: \$10,000  
 Prin. Invest.: P COPPI  
 Tech. Officer: GSFC/J NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7074** **YALE UNIVERSITY** **3361**  
 STAR FORMATION IN THE EARLY UNIVERSE-ATP  
 03/03/1998 - 02/14/2001 FY00: \$90,432 Total: \$277,032  
 Prin. Invest.: P COPPI  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7739** **YALE UNIVERSITY** **3362**  
 SUPERCONDUCTING FILMS AND TUNNEL JUNCTIONS FOR SINGLE-  
 PHOTON X-RAY DETECTORS  
 10/01/1998 - 05/31/2000 FY00: \$0 Total: \$110,000  
 Prin. Invest.: D PROBER  
 Tech. Officer: GSFC/A E SZMKOWIAK  
 CASE Category: 13 - PHYSICS

**NAG 5 8406** **YALE UNIVERSITY** **3363**  
 MODELING CONVECTION IN STARS; IMPROVING STELLAR MODELS FOR  
 STELLAR POPULATION SYNTHESIS (ATP-  
 03/15/1999 - 03/14/2000 FY00: \$0 Total: \$111,397  
 Prin. Invest.: P F DEMARQUE  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8434** **YALE UNIVERSITY** **3364**  
 OBSERVATIONS OF A NEW OUTBURST OF AGX-1 OR CEN X-4  
 04/02/1999 - 03/31/2000 FY00: \$0 Total: \$8,278  
 Prin. Invest.: C D BAILYN  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8589** **YALE UNIVERSITY** **3365**  
 PHOTON-COUNTING DETECTORS FOR SUBMILLIMETER IMAGING AND  
 SPECTROSCOPY  
 07/08/1999 - 07/14/2001 FY00: \$240,559 Total: \$505,559  
 Prin. Invest.: R J SCHOELKOPF  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8813** **YALE UNIVERSITY** **3366**  
 FROM RNA TO CONTEMPORARY METABOLISM: THE M1 RIBOSOME AS A  
 MODEL SYSTEM  
 09/23/1999 - 08/31/2000 FY00: \$0 Total: \$70,000  
 Prin. Invest.: R L DORIT  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9123** **YALE UNIVERSITY** **3367**  
 ANALYSIS OF NEW & ARCHIVAL DATA TO STUDY & CHARACTERIZE RAPID  
 X-RAY VARIABILITY IN BLAZARS - ADP 99  
 03/28/2000 - 03/31/2001 FY00: \$43,548 Total: \$43,548  
*Prin. Invest.:* P COPPI  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9168** **YALE UNIVERSITY** **3368**  
 GLOBULAR CLUSTER FORMATION (ATP 99 )  
 03/27/2000 - 03/31/2001 FY00: \$102,163 Total: \$102,163  
*Prin. Invest.:* S ZEPF  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9316** **YALE UNIVERSITY** **3369**  
 LANDSCAPE CHANGES IN THE MIDDLE EAST: A REGIONAL ASSESSMENT  
 USING REMOTE SENSING  
 03/28/2000 - 03/31/2001 FY00: \$250,000 Total: \$250,000  
*Prin. Invest.:* R SMITH  
*Tech. Officer:* GSFC/G GUTMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9437** **YALE UNIVERSITY** **3370**  
 CHARACTERIZATION OF HUMID-FOREST & SAVANNA ECO-REGIONS OF  
 WEST & CENTRAL AFRICA USING SATELLITE SENSING  
 04/13/2000 - 04/30/2001 FY00: \$132,015 Total: \$132,015  
*Prin. Invest.:* M ASHTON  
*Tech. Officer:* GSFC/J DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9554** **YALE UNIVERSITY** **3371**  
 RNA MODIFYING ENZYMES: DETERMINANTS OF DESIGN AND EVOLUTION  
 OF BIOLOGICAL INFORMATION PROCESSING  
 05/04/2000 - 04/30/2001 FY00: \$103,620 Total: \$103,620  
*Prin. Invest.:* D SOLL  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 9595** **YALE UNIVERSITY** **3372**  
 SINGLE-PHOTON STIMULATED EMISSION DETECTORS WITH RF-SINGLE-ELECTRON TRANSDUCERS  
 06/09/2000 - 06/30/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* D E PROBER  
*Tech. Officer:* GSFC/C STAHL  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9651** **YALE UNIVERSITY** **3373**  
 THE FORMATION AND EVOLUTION OF GLOBULAR CLUSTER SYSTEMS AND  
 IMPLICATIONS FOR THE FORMATION HISTORY  
 06/22/2000 - 06/14/2001 FY00: \$114,100 Total: \$114,100  
*Prin. Invest.:* S ZEPF  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1351** **YALE UNIVERSITY** **3374**  
 NOVEL CONCEPTS IN ACOUSTOPHORESIS FOR BIOTECHNOLOGY  
 APPLICATIONS UNDER DIRECTION DR. APFEL  
 05/23/1997 - 09/30/2001 FY00: \$66,000 Total: \$248,000  
*Prin. Invest.:* R E APFEL  
*Tech. Officer:* MSFC/B GUYNES, MSFC/J MAYO  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1443** **YALE UNIVERSITY** **3375**  
 R/S ATOM INTERFEROMETRY IN A MICROGRAVITY ENVIRONMENT  
 02/06/1998 - 01/31/2003 FY00: \$100,000 Total: \$275,000  
*Prin. Invest.:* M A KASEVICH  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 13 - PHYSICS

**NAG 8 1449** **YALE UNIVERSITY** **3376**  
 INVESTIGATION OF FUTURE MICROGRAVITY ATOMIC CLOCKS  
 03/09/1998 - 03/01/2003 FY00: \$200,000 Total: \$550,000  
*Prin. Invest.:* K GIBBLE  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 13 - PHYSICS

**NAG 8 1461** **YALE UNIVERSITY** **3377**  
 NUCLEATION AND GROWTH MECHANISMS UNDERLYING THE MICRO-  
 STRUCTURE OF POLYMER FOAMS PRODUCED  
 02/18/1998 - 01/31/2002 FY00: \$50,000 Total: \$213,333  
*Prin. Invest.:* R E APFEL, D WU  
*Tech. Officer:* MSFC/C TALLEY  
*CASE Category:* 13 - PHYSICS

**NCC 3 691** **YALE UNIVERSITY** **3378**  
 COMBUSTION OF INDIVIDUAL BUBBLES AND SUBMERGED GAS JETS IN  
 LIQUID FUELS  
 03/24/1999 - 01/11/2003 FY00: \$103,000 Total: \$178,000  
*Prin. Invest.:* D E ROSNER  
*Tech. Officer:* GRC/K SACKSTEDER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 3 52347** **YALE UNIVERSITY** **3379**  
 RHEOLOGY AND STATISTICAL MICROSTRUCTURE OF CONCENTRATED  
 EMULSIONS AND FOAMS  
 08/11/1998 - 07/01/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* M LOEWENBERG, NONE  
*Tech. Officer:* GRC/F MONTEGANI  
*CASE Category:* 43 - CHEMICAL ENGR

**NGT 5 50042** **YALE UNIVERSITY** **3380**  
 TERAHERTZ SUPERCONDUCTING HETERODYNE RECEIVERS  
 08/04/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* PROBER  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NGT 5 50067** **YALE UNIVERSITY** **3381**  
 SPACE BASED LASER-COOLED ATOMIC CLOCKS  
 08/26/1997 - 06/30/2001 FY00: \$0 Total: \$65,060  
*Prin. Invest.:* K GIBBLE  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 5 50082** **YALE UNIVERSITY** **3382**  
 SUPERCONDUCTING TUNNEL JUNCTION DETECTORS FOR SING IN VISIBLE  
 AND ULTRAVIOLET ASTRONOMY  
 09/05/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: DANIEL, NONE  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50287** **YALE UNIVERSITY** **3383**  
 GLOBAL CLUSTER SYSTEMS AS PROBES OF GALAXY FORMATI ON  
 (STUDENT: KATHERINE RHODE)  
 06/22/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: S E ZEPF  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## DELAWARE

**NAG 1 2030** **DELAWARE STATE UNIVERSITY** **3384**  
 INVESTIGATION OF OPTICAL PHASE DISTORTIONS IN SOLID STATE  
 PULSED LASER AMPLIFIER  
 03/23/1998 - 12/31/2000 FY00: \$99,520 Total: \$297,207  
 Prin. Invest.: N MELIKECHI  
 Tech. Officer: LARC/W C EDWARDS, LARC/N P BANRES  
 CASE Category: 13 - PHYSICS

**NAG 5 8240** **DELAWARE STATE UNIVERSITY** **3385**  
 DELAWARE STATE UNIVERSITY CENTER FOR EXCELLENCE IN MATH-  
 EMATICS, SCIENCE, AND TECHNOLOGY  
 02/19/1999 - 02/28/2001 FY00: \$100,000 Total: \$199,998  
 Prin. Invest.: G OFOSU  
 Tech. Officer: GSFC/D MENCHAN  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1920** **UNIVERSITY OF DELAWARE** **3386**  
 FREE-SURFACE AND CONTACT-LINE MOTION OF LIQUIDS IN A  
 MICROGRAVITY ENVIRONMENT  
 07/07/1996 - 07/10/2001 FY00: \$47,000 Total: \$355,000  
 Prin. Invest.: L W SCHWARTZ  
 Tech. Officer: GRC/M W WEISLOGEL  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1955** **UNIVERSITY OF DELAWARE** **3387**  
 SURFACANT-BASED CRITICAL PHENOMENA IN MICROGRAVITY  
 08/19/1996 - 08/31/2001 FY00: \$44,000 Total: \$241,500  
 Prin. Invest.: E W KALER, M E PAULATIS  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 5 4829** **UNIVERSITY OF DELAWARE** **3388**  
 AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A  
 TRMM VALIDATION EFFORT  
 07/03/1997 - 06/30/2001 FY00: \$40,000 Total: \$160,000  
 Prin. Invest.: C J WILLMOTT  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 5054** **UNIVERSITY OF DELAWARE** **3389**  
 ACCELERATION OF COSMIC RAYS IN WIND-BLOWN STRUC- TURES  
 AROUND SUPERNOVAS  
 03/27/1996 - 05/31/2000 FY00: \$0 Total: \$80,000  
 Prin. Invest.: T K GAISSER  
 Tech. Officer: GSFC/H C NEEDLEMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 5181** **UNIVERSITY OF DELAWARE** **3390**  
 PROTON/ANTI-PROTON RATIO AS A PROBE OF SOLAR MODULATION  
 03/26/1998 - 02/28/2001 FY00: \$63,000 Total: \$201,604  
 Prin. Invest.: T K GAISSER  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5221** **UNIVERSITY OF DELAWARE** **3391**  
 GRANT NAG5-5221 BALLOON AIR CHERENKOV (BACH) PI PROF PAUL  
 EVENSON  
 03/16/1999 - 03/11/2004 FY00: \$225,000 Total: \$475,000  
 Prin. Invest.: P A EVENSON  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 6553** **UNIVERSITY OF DELAWARE** **3392**  
 THE INFLUENCE OF COUPLING WITH THE IONOSPHERE AND  
 ATMOSPHERE ON ROTATIONAL DYNAMICS IN THE JOVIAN MA  
 10/17/1997 - 08/31/2000 FY00: \$0 Total: \$120,992  
 Prin. Invest.: D PONTIUS  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 6619** **UNIVERSITY OF DELAWARE** **3393**  
 CENTERS OF EXCELLENCE IN APPLICATION OF REMOTE SEN SING TO  
 REGIONAL AND GLOBAL INTEGRATED ENVIRONME  
 11/18/1997 - 11/14/1999 FY00: \$0 Total: \$150,018  
 Prin. Invest.: D KLEMAS  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7009** **UNIVERSITY OF DELAWARE** **3394**  
 NATURE AND ORIGIN OF THE HIGHEST ENERGY COSMIC RAY S - ATP  
 02/12/1998 - 02/14/2001 FY00: \$96,084 Total: \$293,484  
 Prin. Invest.: T STANOV  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7237** **UNIVERSITY OF DELAWARE** **3395**  
 DEUTERIUM IN THE SUN: COSMOLOGICAL IMPLICATIONS AN D CONVEC-  
 TION DYNAMICS  
 04/08/1998 - 10/31/1999 FY00: \$0 Total: \$31,170  
 Prin. Invest.: D J MULLAN  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7949** **UNIVERSITY OF DELAWARE** **3396**  
 APPLICATION OF SATELLITE ALTIMETER DATA TO STUDIES OF OCEAN  
 SURFACE HEATFLUX AND UPPER OCEAN THERMA  
 12/23/1998 - 12/14/2000 FY00: \$75,000 Total: \$145,000  
 Prin. Invest.: X YAN  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

<p><b>NAG 5 8556 UNIVERSITY OF DELAWARE 3397</b>  A DATA COORDINATOR FOR CLIVAR AND G30S  06/23/1999 - 06/30/2001 FY00: \$61,217 Total: \$125,242  Prin. Invest.: F WEBSTER  Tech. Officer: GSFC/E LINDSTROM  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 2606 UNIV OF DELAWARE - BARTOL RESEARCH INST 3405</b>  COMPREHENSIVE SUPRATHERMAL AND ENERGETIC PARTICLE ANALYZER  FOR THE SOLAR HELIOSPHERIC OBSERVATORY  05/23/1994 - 12/31/1999 FY00: \$0 Total: \$600,000  Prin. Invest.: P EVENSEN  Tech. Officer: GSFC/A POLAND, GSFC  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 8696 UNIVERSITY OF DELAWARE 3398</b>  OBSERVATIONAL STUDIES OF THE SOLAR CORONA  08/17/1999 - 08/31/2000 FY00: \$3,694 Total: \$25,030  Prin. Invest.: D MULLAN  Tech. Officer: GSFC/J M DAVILA  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 2848 UNIV OF DELAWARE - BARTOL RESEARCH INST 3406</b>  PARTICIPATION IN NASA/GSFC MAGNETOMETER EXPERIMENT ON GGS  SPACECRAFT WIND  12/15/1994 - 12/31/1999 FY00: \$0 Total: \$149,700  Prin. Invest.: N F NESS  Tech. Officer: GSFC/M ACUNA  CASE Category: 13 - PHYSICS</p>
<p><b>NAG 5 9116 UNIVERSITY OF DELAWARE 3399</b>  MARS GLOBAL SURVEYOR DATA ANALYSIS AND INTERPRETATION  02/28/2000 - 02/28/2001 FY00: \$20,000 Total: \$20,000  Prin. Invest.: N F NESS  Tech. Officer: GSFC/M H ACUNA  CASE Category: 13 - PHYSICS</p>	<p><b>NAG 5 3530 UNIV OF DELAWARE - BARTOL RESEARCH INST 3407</b>  MULTI-SPECTRAL DIAGNOSTICS AND DYNAMICAL MODELLING STAR  WINDS  12/13/1996 - 11/30/2000 FY00: \$99,900 Total: \$383,478  Prin. Invest.: S P OWOCKI  Tech. Officer: GSFC/D K WEST  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 8 1346 UNIVERSITY OF DELAWARE 3400</b>  PROTEIN CRYSTALLIZATION IN COMPLEX FLUIDS  05/23/1997 - 11/30/2000 FY00: \$161,000 Total: \$540,000  Prin. Invest.: E W KALER, D  Tech. Officer: MSFC/D SMITH  CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>	<p><b>NAG 5 3538 UNIV OF DELAWARE - BARTOL RESEARCH INST 3408</b>  PARTICIPATION IN THE NASA GSFC MAGNETOMETER EXPERIMENT ON  MARS GLOBAL SURVEYOR  11/13/1996 - 12/31/1999 FY00: \$0 Total: \$45,000  Prin. Invest.: N NESS  Tech. Officer: GSFC/M ACUNA  CASE Category: 13 - PHYSICS</p>
<p><b>NAG 8 1427 UNIVERSITY OF DELAWARE 3401</b>  DROPLETS OF 3HE-4HE MIXTURES  02/11/1998 - 01/31/2003 FY00: \$80,000 Total: \$229,000  Prin. Invest.: S T CHUI  Tech. Officer: MSFC/J W POE  CASE Category: 13 - PHYSICS</p>	<p><b>NAG 5 4065 UNIV OF DELAWARE - BARTOL RESEARCH INST 3409</b>  RADIATION HYDRODYNAMICS OF INTERACTING WINDS IN MA  03/26/1997 - 03/31/2001 FY00: \$0 Total: \$192,000  Prin. Invest.: K GAYLEY  Tech. Officer: HQ/D WEST  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 9 989 UNIVERSITY OF DELAWARE 3402</b>  PROPOSAL TO DEVELOPE ASTRONAUT TRAINING  02/08/1998 - 06/30/2001 FY00: \$0 Total: \$20,000  Prin. Invest.: V KLEMAS, Q ZHEN  Tech. Officer: JSC/S K RUNCO  CASE Category: 33 - OCEANOGRAPHY</p>	<p><b>NAG 5 5063 UNIV OF DELAWARE - BARTOL RESEARCH INST 3410</b>  BALLOON AIR CHERENKOV (BACH) MEASUREMENTS OF HIGH ENERGY  COSMICRAY COMPOSITION  05/03/1996 - 04/30/2000 FY00: \$0 Total: \$737,000  Prin. Invest.: P EVENSONPrin. Invest.: NONE  Tech. Officer: GSFC/H NEEDLEMAN  CASE Category: 13 - PHYSICS</p>
<p><b>NCC 3 784 UNIVERSITY OF DELAWARE 3403</b>  A PRELIMINARY INVESTIGATION OF THE E-BEAM INDUCED POLYMER-  IZATION OF MALEIMIDE AND NORBORNENE END-CAP  03/14/2000 - 12/05/2000 FY00: \$35,894 Total: \$35,894  Prin. Invest.: G R PALMESEPrin. Invest.: NONE  Tech. Officer: GRC/M A MEADOR  CASE Category: 12 - CHEMISTRY</p>	<p><b>NAG 5 5106 UNIV OF DELAWARE - BARTOL RESEARCH INST 3411</b>  ORIGIN OF HIGH ENERGY GALACTIC COSMIC RAYS  02/27/1997 - 05/31/2000 FY00: \$0 Total: \$65,000  Prin. Invest.: T STANEV  Tech. Officer: GSFC/H NEEDLEMAN  CASE Category: 13 - PHYSICS</p>
<p><b>NGT 5 40024 UNIVERSITY OF DELAWARE 3404</b>  NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGR  12/19/1996 - 02/28/2001 FY00: \$248,562 Total: \$966,062  Prin. Invest.: N F NESS  Tech. Officer: HQ/J DASCH  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 5 6061 UNIV OF DELAWARE - BARTOL RESEARCH INST 3412</b>  EXPERIMENTAL RESEARCH ON ANISOTROPY OF THE COSMIC BACK-  GROUND RADIATION FROM A BALLOON-BORNE PLATFORM  08/01/1997 - 06/30/2000 FY00: \$0 Total: \$100,000  Prin. Invest.: PICCIRILLO  Tech. Officer: GSFC/R SILVERBERG  CASE Category: 11 - ASTRONOMY</p>

**NAG 5 6469 UNIV OF DELAWARE - BARTOL RESEARCH INST 3413**  
 USING ULYSSES OBSERVATIONS TO CONSTRAIN GLOBAL MODELS OF THE HELIOSPHERE  
 10/31/1997 - 10/31/2001 FY00: \$105,638 Total: \$302,042  
 Prin. Invest.: G ZANK  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6470 UNIV OF DELAWARE - BARTOL RESEARCH INST 3414**  
 ULYSSES-SWICS CONSTRAINTS ON NON-MAXWELLIAN ELECTRON DISTRIBUTIONS AND UNEQUAL ION FLOW SPEEDS IN A  
 11/14/1997 - 10/31/2000 FY00: \$57,812 Total: \$165,275  
 Prin. Invest.: S OWOCKI  
 Tech. Officer: HQ/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6570 UNIV OF DELAWARE - BARTOL RESEARCH INST 3415**  
 INVESTIGATION OF INTERPLANETARY TURBULENCE AT HIGH LATITUDE USING THE ULYSSES SPACECRAFT  
 11/13/1997 - 10/31/2000 FY00: \$86,803 Total: \$248,199  
 Prin. Invest.: C SMITH  
 Tech. Officer: HQ/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6905 UNIV OF DELAWARE - BARTOL RESEARCH INST 3416**  
 ORIGINS OF COOL STAR MASS LOSS: A UNIFIED AND EFFICIENT APPROACH TO ANALYZE FLUCTUATING WINDS  
 02/09/1998 - 01/31/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: D MULLAN  
 Tech. Officer: HQ/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6969 UNIV OF DELAWARE - BARTOL RESEARCH INST 3417**  
 ENERGETIC PARTICLE PROCESSES IN THE HELIOSPHERE  
 03/12/1998 - 05/31/2001 FY00: \$106,165 Total: \$276,500  
 Prin. Invest.: J A LE ROUX  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7142 UNIV OF DELAWARE - BARTOL RESEARCH INST 3418**  
 TURBULENCE AND PARTICLE TRANSPORT IN SPACE PLASMAS  
 03/23/1998 - 02/28/2001 FY00: \$56,500 Total: \$205,200  
 Prin. Invest.: J BIEBER  
 Tech. Officer: HQ/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7143 UNIV OF DELAWARE - BARTOL RESEARCH INST 3419**  
 HEATING OF CORONAL LOOPS: A TEST OF RESONANT ABSORPTION  
 03/23/1998 - 10/14/1999 FY00: \$0 Total: \$43,792  
 Prin. Invest.: D MULLAN  
 Tech. Officer: HQ/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7164 UNIV OF DELAWARE - BARTOL RESEARCH INST 3420**  
 TURBULENCE, RECONNECTION, AND HEATING IN THE LOWER CORONA  
 03/13/1998 - 04/14/2001 FY00: \$50,170 Total: \$233,457  
 Prin. Invest.: W H MATTHAEUS  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7545 UNIV OF DELAWARE - BARTOL RESEARCH INST 3421**  
 EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND REGIONS  
 06/22/1998 - 06/30/2001 FY00: \$0 Total: \$110,144  
 Prin. Invest.: D LEATHERS, W SHUTTLEWORTH  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7585 UNIV OF DELAWARE - BARTOL RESEARCH INST 3422**  
 OBSERVATIONAL STUDIES OF THE SOLAR CORONA (UD PROPOSAL #99-2570-0004)  
 08/27/1998 - 08/31/1999 FY00: \$0 Total: \$20,320  
 Prin. Invest.: D MULLAN  
 Tech. Officer: GSFC/J M DAVILLA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7796 UNIV OF DELAWARE - BARTOL RESEARCH INST 3423**  
 COMPOSITION AND ABUNDANCE RATIOS OF ANOMALOUS AND GALACTIC COSMIC RAYS: IMPLICATIONS FOR ACE OBSERVATIONS  
 12/14/1998 - 09/30/2000 FY00: \$80,000 Total: \$156,000  
 Prin. Invest.: G P ZANK  
 Tech. Officer: GSFC/D C LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8014 UNIV OF DELAWARE - BARTOL RESEARCH INST 3424**  
 GROUND-LEVEL SOLAR COSMIC RAY DATA FROM SOLAR CYCLE 19  
 01/13/1999 - 12/31/2000 FY00: \$11,500 Total: \$22,500  
 Prin. Invest.: R PYLE  
 Tech. Officer: GSFC/J H BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8134 UNIV OF DELAWARE - BARTOL RESEARCH INST 3425**  
 RESEARCH IN "TURBULENCE AND TRANSPORT PROCESSES" THIS IS THE FIRST YEAR OF A 3-YEAR FUNDING CYCLE.  
 02/04/1999 - 02/14/2001 FY00: \$197,845 Total: \$304,349  
 Prin. Invest.: W H MATTHAEUS  
 Tech. Officer: GSFC/J GREBOWSKY  
 CASE Category: 13 - PHYSICS

**NAG 5 8827 UNIV OF DELAWARE - BARTOL RESEARCH INST 3426**  
 PARTICIPATION IN NASA-GSFC MAGNETOMETER EXPERIMENT ON MARS GLOBAL SURVEYOR  
 09/07/1999 - 09/30/2001 FY00: \$0 Total: \$28,836  
 Prin. Invest.: N F NESS  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NGT 5 50167 UNIV OF DELAWARE - BARTOL RESEARCH INST 3427**  
 PROTEIN CRYSTALLIZATION OF BINARY MIXTURES  
 07/08/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: A M LENHOFF/TESSIER  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

## DISTRICT OF COLUMBIA

**NAG 1 1353**      **GEORGE WASHINGTON UNIVERSITY**      **3428**  
 RESEARCH AND EDUCATION PROGRAM FOR NON-TRADITIONAL ENGINEERING STUDENTS IN THE JIAFS  
 10/09/1991 - 11/30/1999      FY00: \$1      Total: \$537,388  
*Prin. Invest.:* J L WHITESIDES  
*Tech. Officer:* LARC/R L YANG, LARC/E J PRIOR  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 1 1972**      **GEORGE WASHINGTON UNIVERSITY**      **3429**  
 A PROGRAM OF RESEARCH AND EDUCATION IN AERO-SPACE VEHICLE DESIGN, SYNTHESIS, AND OPTIMIZATION.  
 10/31/1997 - 11/30/1999      FY00: -\$50,077      Total: \$352,562  
*Prin. Invest.:* R R SANDUSKY  
*Tech. Officer:* LARC/C V ECKSTROM  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 697**      **GEORGE WASHINGTON UNIVERSITY**      **3430**  
 MATHEMATICAL MODELING OF ENERGY MINIMIZING OFF-DESIGN SHAPES OF LARGE SCIENTIFIC BALLOONS  
 01/25/1993 - 11/30/2000      FY00: \$0      Total: \$572,414  
*Prin. Invest.:* F BAGINSKI  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/I S SMITH  
*CASE Category:* 21 - MATHEMATICS

**NAG 5 3957**      **GEORGE WASHINGTON UNIVERSITY**      **3431**  
 ENVIRONMENTAL SECURITY, SUSTAINABLE DEVELOPMENT, A GLOBAL OBSERVING STRATEGY  
 03/03/1997 - 12/31/2000      FY00: \$43,464      Total: \$390,228  
*Prin. Invest.:* D WILLIAMSON  
*Tech. Officer:* GSFC/J GASCH  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4294**      **GEORGE WASHINGTON UNIVERSITY**      **3432**  
 FUNDING FOR UNSOLICITED PROPOSAL ENTITLED: "EFFECTIVE VEGETATION CANOPIES ON MICROWAVE REMOTE SENSING"  
 03/28/1997 - 09/30/1999      FY00: \$0      Total: \$91,704  
*Prin. Invest.:* N CHAUHAN  
*Tech. Officer:* GSFC/L L THOMPSON  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 5292**      **GEORGE WASHINGTON UNIVERSITY**      **3433**  
 THE SHAPE OF A DESCENDING BALLOON THE SHAPE OF A DESCENDING BALLOON  
 06/14/2000 - 05/17/2001      FY00: \$49,948      Total: \$49,948  
*Prin. Invest.:* F BAGINSKI  
*Tech. Officer:* WFF/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6061**      **GEORGE WASHINGTON UNIVERSITY**      **3434**  
 STUDY OF VENUS NEUTRAL UPPER ATMOSPHERE USING MAGE  
 08/11/1997 - 09/30/2000      FY00: \$0      Total: \$100,000  
*Prin. Invest.:* D M KEATING  
*Tech. Officer:* GSFC/S HOWARD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 6415**      **GEORGE WASHINGTON UNIVERSITY**      **3435**  
 PROPOSAL FOR A SURVEY OF DISASTER MANAGEMENT PROJECT RESULTS AND REQUIREMENTS  
 10/30/1997 - 10/31/1998      FY00: \$0      Total: \$24,938  
*Prin. Invest.:* J S MERRICK  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6978**      **GEORGE WASHINGTON UNIVERSITY**      **3436**  
 LIFE IN THE UNIVERSE: THE EMERGENCE OF ASTROBIOLOGY  
 04/09/1998 - 03/31/1999      FY00: \$0      Total: \$15,000  
*Prin. Invest.:* J LOGSDON  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 8068**      **GEORGE WASHINGTON UNIVERSITY**      **3437**  
 IMPROVED NUMERICAL MODELING OF LOW-DENSITY ATMOSPHERIC FLOW ON IO  
 01/29/1999 - 12/31/2000      FY00: \$28,260      Total: \$42,625  
*Prin. Invest.:* D A LEVIN, NONE  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8287**      **GEORGE WASHINGTON UNIVERSITY**      **3438**  
 MARS GLOBAL SURVEYOR ACCELEROMETER EXPERIMENT: STUDY OF MARSTHERMOSPHERE AND COUPLING  
 02/22/1999 - 01/01/2001      FY00: \$0      Total: \$74,500  
*Prin. Invest.:* G M KEATING  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8664**      **GEORGE WASHINGTON UNIVERSITY**      **3439**  
 1ST YR FUNDING FOR 'COMPREHENSIVE STUDY ON CURRENT AND FUTURE APPLICATIONS OF REMOTE SENSING FOR NAT  
 07/07/1999 - 06/30/2000      FY00: \$0      Total: \$215,079  
*Prin. Invest.:* L S WALTER  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9550**      **GEORGE WASHINGTON UNIVERSITY**      **3440**  
 PRECIPITATION STUDIES USING THE TRMM MICROWAVE LINK FACILITY  
 05/30/2000 - 05/31/2001      FY00: \$57,167      Total: \$57,167  
*Prin. Invest.:* R H LANG  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 9 1185**      **GEORGE WASHINGTON UNIVERSITY**      **3441**  
 DEVELOP TUNABLE DIODE LASER/CAVITY RING-DOWN SENSOR  
 01/11/2000 - 01/09/2003      FY00: \$101,249      Total: \$101,249  
*Prin. Invest.:* J H MILLER  
*Tech. Officer:* NMO/D JAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 1 14**      **GEORGE WASHINGTON UNIVERSITY**      **3442**  
 AEROACOUSTICS RESEARCH PROGRAM IN JIAFS  
 05/16/1979 - 11/30/1999      FY00: -\$19,010      Total: \$3,604,931  
*Prin. Invest.:* H LIEBOWITZ, M K MYERS  
*Tech. Officer:* LARC/L R CLARK, LARC/D G STEPHENS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 24**      **GEORGE WASHINGTON UNIVERSITY**      **3443**  
 PROGRAMS OF RESEARCH IN FLIGHT SCIENCES  
 08/08/1979 - 11/30/1999      FY00: -\$37,959      Total: \$3,795,107  
*Prin. Invest.:* H LIEBOWITZ, J L WHITESIDES  
*Tech. Officer:* LARC/R T BRIGHT  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 29**      **GEORGE WASHINGTON UNIVERSITY**      **3444**  
 RESEARCH PROGRAM IN FLIGHT DYNAMICS IN THE JIAPS AT THE NASA  
 LANGLEY RESEARCH CENTER  
 11/16/1979 - 11/30/1998      FY00: -\$1      Total: \$2,786,881  
*Prin. Invest.:* H LIEBOWITZ  
*Tech. Officer:* LARC/P C MURPHY, LARC/P C MURPHY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 47**      **GEORGE WASHINGTON UNIVERSITY**      **3445**  
 CORE PROGRAM IN THE JOINT INSTITUTE FOR ADVANCEMENT OF FLIGHT  
 SCIENCES AT THE NASA-LANGLEY RESEARCH  
 11/05/1980 - 11/30/2000      FY00: \$152,442      Total: \$5,481,454  
*Prin. Invest.:* J L WHITESIDES, H W LIEBOWITZ  
*Tech. Officer:* LARC/R L YANG, LARC/M F CARD  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 104**      **GEORGE WASHINGTON UNIVERSITY**      **3446**  
 A PROGRAM OF RESEARCH & EDUCATION IN ASTRONAUTICS IN JIAFS  
 04/30/1986 - 08/31/1999      FY00: \$0      Total: \$0  
*Prin. Invest.:* R H TOLSON  
*Tech. Officer:* LARC/L F ROWELL  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NCC 1 208**      **GEORGE WASHINGTON UNIVERSITY**      **3447**  
 PROGRAM OF RESEARCH AND EDUCATION IN AEROSPACE STRUCTURES  
 12/20/1994 - 08/31/1999      FY00: -\$1,314      Total: \$529,723  
*Prin. Invest.:* R H TOLSON  
*Tech. Officer:* LARC/E C WYNNE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 217**      **GEORGE WASHINGTON UNIVERSITY**      **3448**  
 EXPERIMENTS IN THE THERMAL AND FLUID SCIENCES IN THE JOINT INSTITUTE  
 FOR ADVANCEMENT OF FLIGHT  
 09/11/1995 - 11/30/1999      FY00: -\$8,797      Total: \$540,655  
*Prin. Invest.:* A D CUTLER  
*Tech. Officer:* LARC/G S DISKIN, LARC/M W SMITH  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 326**      **GEORGE WASHINGTON UNIVERSITY**      **3449**  
 A PROGRAM OF RESEARCH IN FLIGHT DYNAMICS IN JIAFS  
 01/27/1999 - 11/30/2000      FY00: \$71,000      Total: \$209,239  
*Prin. Invest.:* V KLEIN  
*Tech. Officer:* LARC/J G BATTERSON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 331**      **GEORGE WASHINGTON UNIVERSITY**      **3450**  
 A COOPERATIVE PROGRAM OF RESEARCH & EDUCATION IN AEROSPACE  
 VEHICLE MECHANICS AT JIAFS  
 03/22/1999 - 11/30/2000      FY00: \$303,167      Total: \$560,992  
*Prin. Invest.:* R H TOLSON  
*Tech. Officer:* LARC/R W BUCHANAN  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NCC 1 370**      **GEORGE WASHINGTON UNIVERSITY**      **3451**  
 EXPERIMENTS IN THE FLUID AND THERMAL SCIENCES  
 02/10/2000 - 11/30/2000      FY00: \$133,857      Total: \$133,857  
*Prin. Invest.:* A D CUTLER  
*Tech. Officer:* LARC/G S DISKIN, LARC/M W SMITH  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 374**      **GEORGE WASHINGTON UNIVERSITY**      **3452**  
 AEROACOUSTICS RESEARCH PROGRAM JIAFS  
 02/15/2000 - 11/30/2000      FY00: \$88,011      Total: \$88,011  
*Prin. Invest.:* M K MYERS  
*Tech. Officer:* LARC/C A POWELL  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 384**      **GEORGE WASHINGTON UNIVERSITY**      **3453**  
 A RESEARCH PROGRAM IN FLIGHT SCIENCES AT THE NASA LANGLEY  
 RESEARCH CENTER - JIAFS  
 03/07/2000 - 11/30/2000      FY00: \$234,055      Total: \$234,055  
*Prin. Invest.:* J L WHITESIDES  
*Tech. Officer:* LARC/C V ECKSTROM  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 387**      **GEORGE WASHINGTON UNIVERSITY**      **3454**  
 A PROGRAM OF RESEARCH AND EDUCATION IN AERO-SPACE VEHICLE  
 DESIGN, SYNTHESIS, AND OPTIMIZATION  
 03/13/2000 - 11/30/2000      FY00: \$176,859      Total: \$176,859  
*Prin. Invest.:* R R SANDUSKY  
*Tech. Officer:* LARC/M D MOORE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 3 613**      **GEORGE WASHINGTON UNIVERSITY**      **3455**  
 SATELLITE COMMUNICATIONS NETWORKS AND INTEROPERABILITY  
 RESEARCH  
 04/29/1998 - 05/03/1999      FY00: -\$3,198      Total: \$196,629  
*Prin. Invest.:* B I EDELSON, H J HELGERT, N R HELM  
*Tech. Officer:* GRC/S W MAINGER, GRC/K B BHASIN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 5 51**      **GEORGE WASHINGTON UNIVERSITY**      **3456**  
 PROGRAM FOR RESEARCH AND EDUCATION IN SPACE TECHNOLOGY  
 12/14/1992 - 09/30/1999      FY00: \$0      Total: \$2,847,087  
*Prin. Invest.:* G FRIEDER, N BEDEWI  
*Tech. Officer:* GSFC/T E HUBER, GSFC/J R ROBINSON  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NCC 5 436**      **GEORGE WASHINGTON UNIVERSITY**      **3457**  
 PROGRAM FOR RESEARCH AND EDUCATION IN SPACE TECHNOLOGY  
 (PREST)  
 10/04/1999 - 09/30/2000      FY00: \$68,136      Total: \$68,136  
*Prin. Invest.:* S A SARKANI  
*Tech. Officer:* GSFC/D ASATO  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 2 52223**      **GEORGE WASHINGTON UNIVERSITY**      **3458**  
 SCIENCE & ENGINEERING APPRENTICE PROGRAM  
 06/05/1997 - 05/14/2000      FY00: -\$320      Total: \$72,199  
*Prin. Invest.:* M KRUPSAW  
*Tech. Officer:* ARC/G D BLANEY, ARC/D S OZBURN  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NGT 2 52263**      **GEORGE WASHINGTON UNIVERSITY**      **3459**  
 SCIENCE & ENGINEERING APPRENTICE PROGRAM  
 06/30/2000 - 06/14/2001      FY00: \$27,837      Total: \$27,837  
*Prin. Invest.:* M KRUPSAW  
*Tech. Officer:* ARC/G D BLANEY, ARC/D S OZBORN  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NGT 5 30**      **GEORGE WASHINGTON UNIVERSITY**      **3460**  
 IMAGE RESTORATION AND NOISE REMOVAL IN HOLOGRAPHIC DATA  
 07/15/1996 - 08/14/2000      FY00: \$0      Total: \$66,000  
*Prin. Invest.:* M H LOEW  
*Tech. Officer:* GSFC/G A SOFFEN, GSFC/J DORBAND  
*CASE Category:* 22 - COMPUTER SCIENCE

**NGT 5 40058**      **GEORGE WASHINGTON UNIVERSITY**      **3461**  
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR  
 02/14/1997 - 02/28/2000      FY00: \$0      Total: \$595,000  
*Prin. Invest.:* J M LOGSDON  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1058**      **GEORGETOWN UNIVERSITY**      **3462**  
 CALCIUM KINETIC DURING SPACE FLIGHT  
 12/16/1998 - 12/31/2000      FY00: \$13,449      Total: \$39,339  
*Prin. Invest.:* E WASTNEY  
*Tech. Officer:* JSC/S M SMITH  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NGT 5 30043**      **GEORGETOWN UNIVERSITY**      **3463**  
 SURFACE CHEMISTRY OF POLAR STRATOSPHERIC CLOUD PAR  
 12/30/1996 - 08/31/1999      FY00: \$0      Total: \$66,000  
*Prin. Invest.:* J M HICKS  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 2019**      **HOWARD UNIVERSITY**      **3464**  
 STRUCTURE-FUNCTION RELATIONSHIPS OF IMPACT-MODIFIED CYANATE  
 ESTER RESINS  
 03/13/1998 - 03/15/2001      FY00: \$100,000      Total: \$300,000  
*Prin. Invest.:* W E COLLINS, NONE  
*Tech. Officer:* LARC/H L BELVIN, LARC/J W CONNELL  
*CASE Category:* 43 - CHEMICAL ENGR

**NAG 1 2124**      **HOWARD UNIVERSITY**      **3465**  
 INVESTIGATION OF WAKE-VORTEX/AIRCRAFT ENCOUNTERS  
 12/14/1998 - 08/31/2000      FY00: \$0      Total: \$16,154  
*Prin. Invest.:* S T SMITH, C ROBERTS, K PETE  
*Tech. Officer:* LARC/D D VICROY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2148**      **HOWARD UNIVERSITY**      **3466**  
 CONTRIBUTION OF FLAP-SIDE EDGE VORTEX BURSTING TO AIRFRAME  
 NOISE (NRA 98-LARC-5)  
 02/05/1999 - 11/04/2001      FY00: \$77,605      Total: \$153,859  
*Prin. Invest.:* S T SMITH  
*Tech. Officer:* LARC/R R ANTOLIFF  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 1677**      **HOWARD UNIVERSITY**      **3467**  
 FREE RADICAL SPECTROSCOPY AND KINETICS IN MICROGRA VTY  
 COMBUSTION  
 10/15/1994 - 10/14/1999      FY00: \$6,596      Total: \$362,271  
*Prin. Invest.:* P MISRA  
*Tech. Officer:* GRC/N D PILTCH  
*CASE Category:* 13 - PHYSICS

**NAG 3 1931**      **HOWARD UNIVERSITY**      **3468**  
 ADVANCED INTELLIGENT SYSTEM APPLICATION TO LOAD FO RECASTING  
 & CONTROL FOR HYBRID ELECTRIC BUS  
 07/24/1996 - 05/22/1999      FY00: -\$4,058      Total: \$184,942  
*Prin. Invest.:* J A MOMOH  
*Tech. Officer:* GRC/L VITERNA  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 1978**      **HOWARD UNIVERSITY**      **3469**  
 AEROSPACE POWER SYSTEM AUTOMATION  
 10/25/1996 - 12/31/2000      FY00: \$0      Total: \$300,000  
*Prin. Invest.:* J A MOMOH  
*Tech. Officer:* GRC/J L DOLCE  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 2030**      **HOWARD UNIVERSITY**      **3470**  
 EXPERIMENTAL IMPLEMENTATION OF HIGH PERFORMANCE AC DRIVES  
 USING NERL DESIGNS  
 04/04/1997 - 08/31/2000      FY00: \$0      Total: \$140,000  
*Prin. Invest.:* A RUBARI  
*Tech. Officer:* GRC/D F NOGA, GRC/D M KAW KAM  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 2173**      **HOWARD UNIVERSITY**      **3471**  
 GROWTH OF REALIZATION OF DEVICES IN LARGE AREA CUBIC SIC  
 06/09/1998 - 02/01/1999      FY00: \$0      Total: \$75,000  
*Prin. Invest.:* M G SPENCER  
*Tech. Officer:* GRC/J A POWELL  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 2287**      **HOWARD UNIVERSITY**      **3472**  
 EXPERIMENTAL VERIFICATION OF ELECTRIC DRIVE TECHNOLOGIES  
 BASED ON ARTIFICIAL INTELLIGENCE TOOLS  
 08/23/1999 - 06/01/2001      FY00: \$38,000      Total: \$76,000  
*Prin. Invest.:* D RUBAAL  
*Tech. Officer:* GRC/D F NOGA  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 2429**      **HOWARD UNIVERSITY**      **3473**  
 A TRANSPORT OPERATION AND CONTROL OF HIGH PERFORMANCE,  
 POWER MANAGEMENT AND DISTRIBUTION (PMAD)  
 05/23/2000 - 05/31/2001      FY00: \$58,065      Total: \$58,065  
*Prin. Invest.:* D A MOMOH  
*Tech. Officer:* GRC/R M BUTTON  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NAG 5 3141**      **HOWARD UNIVERSITY**      **3474**  
 CHARACTERIZATION, EVALUATION AND FABRICATION OF HIGH TEMPERA-  
 TURE SUPERCONDUCTING MATERIALS FOR ...  
 11/03/1995 - 11/14/1998      FY00: \$0      Total: \$426,000  
*Prin. Invest.:* A N THORPE  
*Tech. Officer:* GSFC/M DIPIRRO  
*CASE Category:* 11 - ASTRONOMY



## NASA'S UNIVERSITY PROGRAM

DISTRICT OF COLUMBIA

**NAG 5 4764**                      **HOWARD UNIVERSITY**                      **3475**  
 LABORATORY STUDIES OF THE PHOTOCHEMISTRY OF ACETYL TITAN'S  
 ATMOSPHERE  
 06/13/1997 - 02/29/2000                      FY00: \$0                      Total: \$45,000  
*Prin. Invest.:* D OKABE  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 6066**                      **HOWARD UNIVERSITY**                      **3476**  
 THE DEVELOPMENT OF A NEW GENERATION TRAPPED RADIAT  
 07/28/1997 - 01/31/2001                      FY00: \$0                      Total: \$290,959  
*Prin. Invest.:* R BOURGIN  
*Tech. Officer:* GSFC/S FUNG  
*CASE Category:* 21 - MATHEMATICS

**NAG 5 6835**                      **HOWARD UNIVERSITY**                      **3477**  
 LABORATORY STUDIES OF NITRILES IN TITAN'S ATMOSPHE RE: CYANO-  
 CETYLENES AND C3N  
 01/07/1998 - 12/31/2000                      FY00: \$60,618                      Total: \$189,368  
*Prin. Invest.:* J HALPERN  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7384**                      **HOWARD UNIVERSITY**                      **3478**  
 PUBLIC SERVICE INTERN PROGRAM  
 05/13/1998 - 05/14/2000                      FY00: \$0                      Total: \$161,300  
*Prin. Invest.:* D WOODARD  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8790**                      **HOWARD UNIVERSITY**                      **3479**  
 QUALITY SOFTWARE: KNOWLEDGE ACQUISITION IN SOFTWARE ENGI-  
 NEERING RESEARCH  
 08/31/1999 - 08/31/2001                      FY00: \$100,000                      Total: \$200,000  
*Prin. Invest.:* J TRIMBLE  
*Tech. Officer:* GSFC/W TRUSZKOWSKI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 9175**                      **HOWARD UNIVERSITY**                      **3480**  
 CELEBRATING 20TH CENTURY PIONEERS IN ATMOSPHERIC SCIENCES  
 03/08/2000 - 02/28/2001                      FY00: \$20,000                      Total: \$20,000  
*Prin. Invest.:* V M MORRIS  
*Tech. Officer:* GSFC/N KHAZANIE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9279**                      **HOWARD UNIVERSITY**                      **3481**  
 TO PROVIDE 7 ON-SITE INTERNSHIPS AT GODDARD FOR GRADUATE  
 STUDENTS IN ADMINISTRATIVE DISCIPLINES  
 03/21/2000 - 03/31/2001                      FY00: \$73,700                      Total: \$73,700  
*Prin. Invest.:* W WOODARD  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 977**                      **HOWARD UNIVERSITY**                      **3482**  
 CAFFEINE METBOLISM-THE PHARMACOKINETICS OF SPACE FLIGHT  
 09/30/1997 - 06/30/2001                      FY00: \$0                      Total: \$394,052  
*Prin. Invest.:* M W COOMES  
*Tech. Officer:* JSC/L PUTCHA  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 3 571**                      **HOWARD UNIVERSITY**                      **3483**  
 EXPERIMENTAL EVALUATION OF MOTOR DRIVE TECHNOLOGIE S FOR  
 FUTURE AEROSPACE APPLICATIONS  
 08/01/1997 - 01/31/2001                      FY00: \$0                      Total: \$312,543  
*Prin. Invest.:* A RUBAAI, M E ELBULUK  
*Tech. Officer:* GRC/M D KANKAM  
*CASE Category:* 45 - ELECTRICAL ENGR

**NCC 5 184**                      **HOWARD UNIVERSITY**                      **3484**  
 TERRESTRIAL AND EXTRATERRESTRIAL ATMOSPHERES  
 03/12/1997 - 02/28/2001                      FY00: \$999,539                      Total: \$3,998,284  
*Prin. Invest.:* A N THORPE  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 197**                      **HOWARD UNIVERSITY**                      **3485**  
 CSTE A HBCU ACADEMIC AND RESEARCH CONSORTIUM (CHARC  
 05/22/1997 - 05/31/2000                      FY00: \$0                      Total: \$2,200,000  
*Prin. Invest.:* A N THORPE  
*Tech. Officer:* GSFC/W R HOEGY  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 5 387**                      **HOWARD UNIVERSITY**                      **3486**  
 CENTER FOR THE STUDY OF TERRESTRIAL AND EXTRATERRE STRIAL  
 ATMOSPHERES(CSTE A)  
 04/16/1999 - 04/30/2001                      FY00: \$100,000                      Total: \$200,000  
*Prin. Invest.:* S T SMITH  
*Tech. Officer:* GSFC/W R HOEGY  
*CASE Category:* 13 - PHYSICS

**NCC 5 420**                      **HOWARD UNIVERSITY**                      **3487**  
 CSTE A-HBCU ACACEMIC AND RESEARCH CONSORTIUM (CHARC )  
 08/30/1999 - 08/31/2001                      FY00: \$575,000                      Total: \$1,125,000  
*Prin. Invest.:* A THORPE  
*Tech. Officer:* GSFC/W HOEGY  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 5 424**                      **HOWARD UNIVERSITY**                      **3488**  
 GSFC/HU FELLOWSHIP IN ATMOSPHERIC SCIENCE (GOHFAS)  
 08/27/1999 - 08/31/2001                      FY00: \$100,000                      Total: \$175,000  
*Prin. Invest.:* S T SMITH  
*Tech. Officer:* GSFC/W HOEGY  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 8 184**                      **HOWARD UNIVERSITY**                      **3489**  
 IMPORT OF IMPAIRED POLYADP-RIBOSYLATION AND FREE RADICAL  
 STRESS IN ATAXIA-TELANGIECTASIA  
 09/01/1999 - 08/31/2001                      FY00: \$0                      Total: \$99,349  
*Prin. Invest.:* R SRIDHAR  
*Tech. Officer:* MSFC/R SRIDHAR  
*CASE Category:* 56 - MEDICL

**NGT 40024**                      **HOWARD UNIVERSITY**                      **3490**  
 NGT-40024/HOWARD UNIV/NATIONAL SPACE GRANT COLLEGE AND  
 FELLOWSHIP PROGRAM  
 05/29/1991 - 02/29/2000                      FY00: -\$25,336                      Total: \$682,114  
*Prin. Invest.:* J B HALPERN, NONE  
*Tech. Officer:* HQ/E T SCHWARTZ  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 37                      HOWARD UNIVERSITY                      3491**  
 1997 ASEE - NASA SUMMER FACULTY FELLOWSHIP PROGRAM  
 04/01/1997 - 12/31/1999      FY00: -\$2,439                      Total: \$456,295  
*Prin. Invest.:* J B HALPERN  
*Tech. Officer:* GSFC/G SOFFEN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 77                      HOWARD UNIVERSITY                      3492**  
 SUPPORT OF THE 1999 ASEE-NASA SUMMER FACULTY FELLOWSHIP  
 PROGRAM(AERONAUTICS AND SPACE RESEARCH)  
 03/25/1999 - 12/31/2000      FY00: \$0                      Total: \$431,500  
*Prin. Invest.:* J B HALPERN  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 269                      THE AMERICAN UNIVERSITY                      3493**  
 DEVELOPMENT OF STATE OF THE ART SOLID STATE LASERS FOR ALTI-  
 METRY AND OTHER LIDAR APPLICATIONS  
 02/11/1998 - 06/30/2000      FY00: \$0                      Total: \$473,454  
*Prin. Invest.:* R B KAY  
*Tech. Officer:* GSFC/J L BUFTON  
*CASE Category:* 13 - PHYSICS

**NCC 5 482                      THE AMERICAN UNIVERSITY                      3494**  
 DEVELOPMENT OF STATE-OF-THE-ART SOLID STATE LASERS FOR ALTI-  
 METRY & OTHER LIDAR APPLICATIONS  
 03/23/2000 - 04/30/2002      FY00: \$253,061                      Total: \$253,061  
*Prin. Invest.:* R B KAY  
*Tech. Officer:* GSFC/J L BUFTON  
*CASE Category:* 13 - PHYSICS

**NGT 5 79                      THE AMERICAN UNIVERSITY                      3495**  
 YEAR 1 OF GSRP GRANT FOR MR. SAMUEL GOMPERS OF THE AMERICAN  
 UNIVERSITY IN SUPPORT OF MICROLASER DEVELOPMENT  
 05/04/1999 - 12/31/2000      FY00: -\$14,667                      Total: \$29,333  
*Prin. Invest.:* J KAY  
*Tech. Officer:* GSFC/G SOFFEN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 5 40068                      THE AMERICAN UNIVERSITY                      3496**  
 DISTRICT OF COLUMBIA/NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP  
 PROGRAM  
 03/29/2000 - 02/28/2001      FY00: \$212,500                      Total: \$212,500  
*Prin. Invest.:* R B EREBDZEN  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50003                      THE AMERICAN UNIVERSITY                      3497**  
 DEVELOPMENT OF ND: YAG PASSIVELY Q SWITCHED MICROLASER FOR  
 USE IN THE SATELLITE LASER RANGING 2000.  
 09/09/1996 - 08/31/1999      FY00: \$0                      Total: \$66,000  
*Prin. Invest.:* R B KAY  
*Tech. Officer:* GSFC/G A SOFFEN, GSFC/J DEGNAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 1 2103                      THE CATHOLIC UNIVERSITY OF AMERICA                      3498**  
 COCKPIT ADAPTIVE AUTOMATION AND PILOT PERFORMANCE  
 08/26/1998 - 07/31/2000      FY00: \$0                      Total: \$127,651  
*Prin. Invest.:* R PARASURAMAN  
*Tech. Officer:* LARC/A T POPE  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NAG 2 1096                      THE CATHOLIC UNIVERSITY OF AMERICA                      3499**  
 DYNAMIC AUTOMATION TOOLS FOR AIR TRAFFIC MANAGEMENT  
 12/09/1996 - 02/28/2001      FY00: \$10,057                      Total: \$959,796  
*Prin. Invest.:* R PARASURAMAN  
*Tech. Officer:* ARC/W JOHNSON, ARC/M R ROSEKEND  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NAG 5 780                      THE CATHOLIC UNIVERSITY OF AMERICA                      3500**  
 ACTIVE CONTROL OF ROBOT MANIPULATOR COMPLIANCE  
 05/15/1986 - 09/30/1999      FY00: \$0                      Total: \$558,470  
*Prin. Invest.:* C C NGUYEN  
*Tech. Officer:* GSFC/L PURVES  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 1413                      THE CATHOLIC UNIVERSITY OF AMERICA                      3501**  
 OBSERVATIONS OBTAINED W/ GODDARD HIGH RESOLUTION  
 08/02/1990 - 09/30/1999      FY00: \$0                      Total: \$281,006  
*Prin. Invest.:* F C BRUHWEILER, C A GRADY  
*Tech. Officer:* GSFC/A SMITH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 1414                      THE CATHOLIC UNIVERSITY OF AMERICA                      3502**  
 TIME-DEPENDENT MODEL TO CALCULATE TONIC & MOLECULAR  
 08/02/1990 - 09/30/1999      FY00: \$0                      Total: \$327,210  
*Prin. Invest.:* C H LYU, F C BRUHWEILER  
*Tech. Officer:* GSFC/A M SMITH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2284                      THE CATHOLIC UNIVERSITY OF AMERICA                      3503**  
 MORPHOLOGY OF LOCAL H I VOID AND THE IONIZATION OF HELIUM IN  
 THE LISM AND GALACTIC HALO  
 06/11/1993 - 06/14/2000      FY00: \$0                      Total: \$351,892  
*Prin. Invest.:* F C BRUHWEILER  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3037                      THE CATHOLIC UNIVERSITY OF AMERICA                      3504**  
 A STUDY TO DETERMINE THE EFFECTS OF SPACE EXPLORATION ON  
 THE FUTURE AND DIRECTION OF HUMAN CIVILIZATION  
 07/31/1995 - 09/30/1999      FY00: \$0                      Total: \$25,000  
*Prin. Invest.:* F C BRUHWEILER  
*Tech. Officer:* GSFC/Y KONDO  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3378                      THE CATHOLIC UNIVERSITY OF AMERICA                      3505**  
 OBSERVATIONS AND ANALYSIS OF DATA OBTAINED BY THE SPACE TELE-  
 SCOPE IMAGING SPECTROGRAPH  
 08/28/1996 - 09/30/2001      FY00: \$0                      Total: \$453,665  
*Prin. Invest.:* A BOGGESE  
*Tech. Officer:* GSFC/T R GULL  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3487                      THE CATHOLIC UNIVERSITY OF AMERICA                      3506**  
 MEASURING BORON ABUNDANCES WITH IUE SPECTRA USING LINES  
 11/25/1996 - 11/14/2000      FY00: \$0                      Total: \$31,905  
*Prin. Invest.:* F C BRUHWEILER  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4103 THE CATHOLIC UNIVERSITY OF AMERICA 3507**  
OBSERVATIONS AND ANALYSIS OF SEYFERT GALAXIES WITH THE SPACE  
TELESCOPE IMAGINGSPECTROGRAPH  
03/31/1997 - 08/31/2001 FY00: \$148,808 Total: \$792,607  
Prin. Invest.: S KRAEMER  
Tech. Officer: GSFC/T GULL  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4345 THE CATHOLIC UNIVERSITY OF AMERICA 3508**  
EXPERIMENTAL STUDIES OF INGENOUS PROCESSES IN ENST  
04/09/1997 - 03/31/2001 FY00: \$9,000 Total: \$159,000  
Prin. Invest.: D DICKINSON  
Tech. Officer: GSFC/D NAVA  
CASE Category: 11 - ASTRONOMY

**NAG 5 4362 THE CATHOLIC UNIVERSITY OF AMERICA 3509**  
SPATIAL-SPECTRAL MAPPING OF CO EMISSION IN COMETS HALE-BOPP,  
AND COMPARISON WITH OTHER ORGANICS  
04/21/1997 - 09/30/2001 FY00: -\$5,601 Total: \$89,765  
Prin. Invest.: D DISANTI  
Tech. Officer: GSFC/T MORGAN  
CASE Category: 11 - ASTRONOMY

**NAG 5 4940 THE CATHOLIC UNIVERSITY OF AMERICA 3510**  
INTERPRETIVE TOOLS FOR ANALYSIS OF CORONAL IMAGES  
06/23/1997 - 09/30/2000 FY00: \$65,600 Total: \$192,800  
Prin. Invest.: D GUHATHAKURTA  
Tech. Officer: GSFC/W J WAGNER  
CASE Category: 13 - PHYSICS

**NAG 5 6026 THE CATHOLIC UNIVERSITY OF AMERICA 3511**  
DEVELOPMENT OF VERY LIGHT WEIGHT ACTIVE OPTICS  
09/04/1997 - 09/14/2000 FY00: \$28,764 Total: \$66,714  
Prin. Invest.: F BRUHWEILER  
Tech. Officer: GSFC/C BOWERS  
CASE Category: 11 - ASTRONOMY

**NAG 5 6139 THE CATHOLIC UNIVERSITY OF AMERICA 3512**  
NEAR-SURFACE MANIFESTATIONS OF GEO-EFFECTIVE SOLAR  
09/08/1997 - 09/14/2002 FY00: \$0 Total: \$198,827  
Prin. Invest.: D GOPALSWAMY  
Tech. Officer: GSFC/W J WAGNER  
CASE Category: 11 - ASTRONOMY

**NAG 5 6239 THE CATHOLIC UNIVERSITY OF AMERICA 3513**  
A STUDY OF PHYSICAL PROCESSES IN THE ATMOSPHERE OF  
09/08/1997 - 09/30/2001 FY00: \$63,821 Total: \$268,375  
Prin. Invest.: R D ROBINSON  
Tech. Officer: GSFC/K G CARPENTER  
CASE Category: 11 - ASTRONOMY

**NAG 5 6674 THE CATHOLIC UNIVERSITY OF AMERICA 3514**  
THE NATURE AND ORIGIN OF THE HGMN PHENOMENA  
11/21/1997 - 05/31/2000 FY00: \$0 Total: \$90,000  
Prin. Invest.: F BRUHWEILER  
Tech. Officer: GSFC/D LECKRONE  
CASE Category: 11 - ASTRONOMY

**NAG 5 6733 THE CATHOLIC UNIVERSITY OF AMERICA 3515**  
X-RAY CORRELATED VARIATIONS IN X PER  
12/16/1997 - 12/31/1999 FY00: \$0 Total: \$35,000  
Prin. Invest.: M SMITH  
Tech. Officer: GSFC/R POLIDAN  
CASE Category: 11 - ASTRONOMY

**NAG 5 7078 THE CATHOLIC UNIVERSITY OF AMERICA 3516**  
MAPPING OF HIGH-ALTITUDE OZONE IN THE ATMOSPHERE OF MARS  
02/25/1998 - 02/28/2001 FY00: \$18,267 Total: \$114,700  
Prin. Invest.: V A KRASNOPOLSKY  
Tech. Officer: GSFC/T MORGAN  
CASE Category: 11 - ASTRONOMY

**NAG 5 7238 THE CATHOLIC UNIVERSITY OF AMERICA 3517**  
A STUDY OF THE COOLER SOLAR PLASMAS USING MICROWAVE DATA IN  
CONJUNCTION WITH SOHO OBSERVATIONS  
04/08/1998 - 10/31/1999 FY00: \$0 Total: \$59,400  
Prin. Invest.: N GOPALSWAMY  
Tech. Officer: GSFC/W WAGNER  
CASE Category: 11 - ASTRONOMY

**NAG 5 7412 THE CATHOLIC UNIVERSITY OF AMERICA 3518**  
INVESTIGATION OF CORONAL LARGE SCALE STRUCTURE UTILIZING  
SPARTAN 201 DATA  
06/02/1998 - 02/14/1999 FY00: -\$1,671 Total: \$51,017  
Prin. Invest.: M GUHATHAKURTA  
Tech. Officer: GSFC/R R FISHER  
CASE Category: 11 - ASTRONOMY

**NAG 5 7413 THE CATHOLIC UNIVERSITY OF AMERICA 3519**  
INVESTIGATION OF THE SOLAR CORONA WITH THE SPARTAN 201 WHITE-  
LIGHTCORONAGRAPH SYSTEM  
06/05/1998 - 05/14/2000 FY00: \$0 Total: \$74,528  
Prin. Invest.: S GIBSON  
Tech. Officer: GSFC/R R FISHER  
CASE Category: 11 - ASTRONOMY

**NAG 5 7700 THE CATHOLIC UNIVERSITY OF AMERICA 3520**  
RESEARCH SUPPORT OF WIND MAGNETIC FIELD INSTRUMENT  
09/22/1998 - 03/15/2000 FY00: \$0 Total: \$50,000  
Prin. Invest.: Y C WHANG  
Tech. Officer: GSFC/J A SLAVIN  
CASE Category: 11 - ASTRONOMY

**NAG 5 7753 THE CATHOLIC UNIVERSITY OF AMERICA 3521**  
QUANTITATIVE ANALYSIS OF ETHANE AND METHANE IN COMETS HYAKU-  
TAKE AND HALE-BOPP: DETERMINATION OF  
12/08/1998 - 12/31/2000 FY00: \$31,274 Total: \$64,074  
Prin. Invest.: N RUSSO  
Tech. Officer: GSFC/R BEEBE  
CASE Category: 11 - ASTRONOMY

**NAG 5 7882 THE CATHOLIC UNIVERSITY OF AMERICA 3522**  
THE DISTRIBUTION AND DYNAMICAL EFFECT OF AEROSOLS IN THE MARS  
ATMOSPHERE USING MARS GLOBAL SURVEYOR T  
12/01/1998 - 12/10/1999 FY00: -\$32,459 Total: \$37,741  
Prin. Invest.: D D SMITH  
Tech. Officer: GSFC/R BEEBE  
CASE Category: 11 - ASTRONOMY

**NAG 5 7905 THE CATHOLIC UNIVERSITY OF AMERICA 3523**  
 SPATIAL-SPECTRAL MAPPING OF COMETARY CO EMISSION, AND  
 COMPARISON WITH OTHER ORGANICS  
 12/10/1998 - 09/30/2000 FY00: \$76,350 Total: \$154,850  
 Prin. Invest.: D A DISANTI  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8018 THE CATHOLIC UNIVERSITY OF AMERICA 3524**  
 INTERPRETATION OF SOHO/LASCO,EIT, UVCS OBSERVATIONS USING A  
 MULTI-DIMENSIONAL MHD MODEL  
 01/06/1999 - 12/31/2000 FY00: \$59,000 Total: \$110,276  
 Prin. Invest.: M GUATHAKURTA  
 Tech. Officer: GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8276 THE CATHOLIC UNIVERSITY OF AMERICA 3525**  
 RADIATIVE ACCELERATION CALCULATIONS FOR B STAR ENV ELOPES AND  
 ATMOSPHERES(ATP 98)  
 02/19/1999 - 02/28/2001 FY00: \$47,438 Total: \$97,491  
 Prin. Invest.: C R PROFFITT  
 Tech. Officer: GSFC/R K OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8312 THE CATHOLIC UNIVERSITY OF AMERICA 3526**  
 LABORATORY PREPARATION AND REACTIONS OF DIRADICAL SPECIES  
 RELEVANT TO HYDROCARBON PHOTOCHEMISTRY O  
 03/22/1999 - 02/28/2000 FY00: \$0 Total: \$70,200  
 Prin. Invest.: D J BOGAN  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8357 THE CATHOLIC UNIVERSITY OF AMERICA 3527**  
 GRANT FUNDS FOR UNIVERSITY SUPPORT OF ELEANOR ROOS EVELT  
 HIGH SCHOOL INVOLVEMENT IN US FIRST ROB  
 03/11/1999 - 01/31/2000 FY00: \$0 Total: \$20,000  
 Prin. Invest.: D NGUYEN  
 Tech. Officer: GSFC/L PURVES  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8508 THE CATHOLIC UNIVERSITY OF AMERICA 3528**  
 EXPERIMENTAL STUDIES OF IGNEOUS PROCESSES IN ENSTATITE  
 METEORITES  
 05/21/1999 - 04/30/2000 FY00: \$0 Total: \$10,000  
 Prin. Invest.: T DICKINSON  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8529 THE CATHOLIC UNIVERSITY OF AMERICA 3529**  
 LUNAR ABUNDANCES OF RADIOACTIVE ELEMENTS AND IMPLICATIONS  
 FOR LUNAR EVOLUTION  
 06/15/1999 - 06/30/2001 FY00: \$24,000 Total: \$49,000  
 Prin. Invest.: R D STARR  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8619 THE CATHOLIC UNIVERSITY OF AMERICA 3530**  
 RESEARCH SUPPORT OF WIND MAGNETIC FIELD INSTRUMENT  
 06/18/1999 - 12/31/2000 FY00: \$0 Total: \$25,000  
 Prin. Invest.: Y C WHANG  
 Tech. Officer: GSFC/J A SLAVIN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8622 THE CATHOLIC UNIVERSITY OF AMERICA 3531**  
 CONTINUED DEVELOPMENT OF A FABRY-PEROT AND LYOT NARROW  
 BAND IMAGING SYSTEM.  
 06/22/1999 - 06/30/2001 FY00: \$29,590 Total: \$58,180  
 Prin. Invest.: F C BRUHWEILER  
 Tech. Officer: GSFC/B WOODGATE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8631 THE CATHOLIC UNIVERSITY OF AMERICA 3532**  
 ATOMIC & MOLECULAR ABUNDANCES IN THE INTERSTELLAR MEDIUM OF  
 THE MILKY WAY AND THE MAGELLANIC  
 06/25/1999 - 08/14/2001 FY00: \$119,870 Total: \$228,786  
 Prin. Invest.: F C BRUHWEILER  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8691 THE CATHOLIC UNIVERSITY OF AMERICA 3533**  
 A SEARCH FOR ROTATIONAL MODULATION OF X-RAY CTRS ON GAMMA  
 CAS (BO.5E)  
 07/21/1999 - 01/31/2001 FY00: \$0 Total: \$9,810  
 Prin. Invest.: R D ROBINSON  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8752 THE CATHOLIC UNIVERSITY OF AMERICA 3534**  
 LARGE SCALE STRUCTURE IN THE DISTANT UNIVERSE  
 08/17/1999 - 09/30/2000 FY00: \$0 Total: \$91,366  
 Prin. Invest.: F C BRUHWEILER  
 Tech. Officer: GSFC/B E WOODGATE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8761 THE CATHOLIC UNIVERSITY OF AMERICA 3535**  
 HUMAN BIOLOGY-BASED ADAPTIVE SYSTEMS IN SUPPORT OF SPACE  
 EXPLORATION  
 09/03/1999 - 08/31/2000 FY00: \$212,767 Total: \$264,767  
 Prin. Invest.: R D PARASURAMAN  
 Tech. Officer: GSFC/R CROUCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8793 THE CATHOLIC UNIVERSITY OF AMERICA 3536**  
 ULTRAVIOLET DIAGNOSTICS OF MAGNETIC AND RELATED ACTIVITY IN  
 MAIN SEQUENCE B STARS (ADP 98)  
 09/07/1999 - 11/30/2000 FY00: \$0 Total: \$36,336  
 Prin. Invest.: M SMITH  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8968 THE CATHOLIC UNIVERSITY OF AMERICA 3537**  
 CORONAL EMISSION AND MASS LOSS IN THE HOTTEST STAR OF THE H-R  
 DIAGRAM - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$48,100 Total: \$48,100  
 Prin. Invest.: F C BRUHWEILER  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8977 THE CATHOLIC UNIVERSITY OF AMERICA 3538**  
 PHASE RESOLVED STUDIES OF THE MAGNETIC A-STAR 17 COM A (HD  
 109662)- FUSE  
 01/24/2000 - 01/31/2001 FY00: \$16,500 Total: \$16,500  
 Prin. Invest.: C R PROFFITT  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8998 THE CATHOLIC UNIVERSITY OF AMERICA 3539**  
 THE DRIVERS OF CORONAL AND INTERPLANETARY SHOCKS.  
 02/02/2000 - 02/14/2001 FY00: \$110,000 Total: \$110,000  
 Prin. Invest.: N GOPALSWAMY  
 Tech. Officer: GSFC/M L KAISER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9394 THE CATHOLIC UNIVERSITY OF AMERICA 3540**  
 VOYAGER CROSSING OF THE TERMINATION SHOCK  
 04/06/2000 - 04/14/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: Y C WHANG  
 Tech. Officer: GSFC/L F BURLQGA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9400 THE CATHOLIC UNIVERSITY OF AMERICA 3541**  
 MAPPING OF HIGH-ALTITUDE OZONE IN THE ATMOSPHERE OF MARS  
 04/10/2000 - 03/31/2001 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: V A KRASNOPOLSKY  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9502 THE CATHOLIC UNIVERSITY OF AMERICA 3542**  
 GLOBAL MEASUREMENT OF SOLAR WIND SPEED AND TEMPERATURE IN  
 THE SUN'S CORONA USING GROUND-BASED VISIBL  
 06/06/2000 - 06/14/2001 FY00: \$47,838 Total: \$47,838  
 Prin. Invest.: O ST.CYR  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9539 THE CATHOLIC UNIVERSITY OF AMERICA 3543**  
 ABUNDANCES OF VERY HEAVY ELEMENTS IN LATE-B AND EARLY-A STARS  
 (ADP 99)  
 05/09/2000 - 05/14/2001 FY00: \$29,217 Total: \$29,217  
 Prin. Invest.: G W WAHLGREN  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9600 THE CATHOLIC UNIVERSITY OF AMERICA 3544**  
 MICROWAVE ENHANCEMENT IN CORONAL HOLES: STRUCTURE, VARI-  
 ABILITY & MAGNETIC NATURE  
 05/19/2000 - 09/14/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: N GOPALSWAMY  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9696 THE CATHOLIC UNIVERSITY OF AMERICA 3545**  
 HOT POPULATIONS IN NEARBY ELLIPTICAL GALAXIES - FUSE  
 07/18/2000 - 07/31/2001 FY00: \$58,879 Total: \$58,879  
 Prin. Invest.: T BROWN  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9865 THE CATHOLIC UNIVERSITY OF AMERICA 3546**  
 REDUCTION AND SCIENTIFIC ANALYSIS OF INFRARED DATA OBTAINED  
 WITH THE NEAR INFRARED SPECTROMETER  
 08/17/2000 - 06/14/2001 FY00: \$37,210 Total: \$37,210  
 Prin. Invest.: F C BRUHWEILER  
 Tech. Officer: GSFC/M M FRUEND  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9888 THE CATHOLIC UNIVERSITY OF AMERICA 3547**  
 A SPECTROSCOPIC STUDY OF ION MOTIONS IN CORONAL HOLES USING  
 SOHO/SUMER OBSERVATIONS  
 08/24/2000 - 08/31/2001 FY00: \$49,843 Total: \$49,843  
 Prin. Invest.: T MORAN  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10006 THE CATHOLIC UNIVERSITY OF AMERICA 3548**  
 LARGE-SCALE STRUCTURE IN THE DISTANT UNIVERSE  
 09/22/2000 - 09/30/2001 FY00: \$91,366 Total: \$91,366  
 Prin. Invest.: F C BRUHWEILER  
 Tech. Officer: GSFC/B WOODGATE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10013 THE CATHOLIC UNIVERSITY OF AMERICA 3549**  
 RESEARCH EXPERIENCES FOR UNDERGRADUATES IN THE LABORATORY  
 FOR ASTRONOMY & SOLARPHYSICS  
 09/25/2000 - 09/30/2001 FY00: \$5,842 Total: \$5,842  
 Prin. Invest.: F C BRUHWEILER  
 Tech. Officer: GSFC/C CRANNEL  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10033 THE CATHOLIC UNIVERSITY OF AMERICA 3550**  
 SPACE QUALIFICATION OF LARGE LIGHTWEIGHT MIRROR TECHNOLOGY  
 FOR USE AT VISIBLE & NEAR-IR WAVELENGTH  
 09/29/2000 - 03/31/2001 FY00: \$42,000 Total: \$42,000  
 Prin. Invest.: P C CHEN  
 Tech. Officer: GSFC/S G NEFF  
 CASE Category: 11 - ASTRONOMY

**NCC 2 994 THE CATHOLIC UNIVERSITY OF AMERICA 3551**  
 PHOTOCHEMISTRY OF PLUTO'S ATMOSPHERE  
 05/22/1997 - 12/14/1998 FY00: \$0 Total: \$81,380  
 Prin. Invest.: V A KRASNOPOLSKY  
 Tech. Officer: ARC/D P CRUIKSHANK, ARC/F C WITTEBORN  
 CASE Category: 11 - ASTRONOMY

**NCC 5 68 THE CATHOLIC UNIVERSITY OF AMERICA 3552**  
 STUDIES OF ELEMENTARY REACTIONS OF CHEMICAL IMPORTANCE IN  
 THE ATMOSPHERES OF PLANETS  
 04/28/1994 - 04/30/2000 FY00: \$0 Total: \$776,914  
 Prin. Invest.: F L NESBITT  
 Tech. Officer: GSFC/L J STIEF  
 CASE Category: 12 - CHEMISTRY

**NCC 5 83 THE CATHOLIC UNIVERSITY OF AMERICA 3553**  
 RESEARCH OF COSMIC HARD X-RAYS AND GAMMA RAYS  
 03/28/1995 - 03/31/2000 FY00: \$0 Total: \$1,476,880  
 Prin. Invest.: C WERNITZ, R STARR  
 Tech. Officer: GSFC/L E ORWIG  
 CASE Category: 11 - ASTRONOMY

**NCC 5 130 THE CATHOLIC UNIVERSITY OF AMERICA 3554**  
 HIGH RESOLUTION SPECTROSCOPY OF COMETARY COMAE AND PLAN-  
 ETARY ATMOSPHERES: IMPLEMENTATION OF THE NEW...  
 02/02/1996 - 03/31/2000 FY00: \$0 Total: \$145,152  
 Prin. Invest.: M DISANTI, M A DI SANTI  
 Tech. Officer: GSFC/M J MUMMA  
 CASE Category: 11 - ASTRONOMY

**NCC 5 210 THE CATHOLIC UNIVERSITY OF AMERICA 3555**  
 INFRARED SPECTROSCOPY OF COMETS: AN OBSERVATIONAL STUDY OF  
 COMETARY COMPOSITION AND ORIGIN.  
 06/17/1997 - 05/31/2000 FY00: \$25,760 Total: \$158,760  
*Prin. Invest.:* N RUSSO  
*Tech. Officer:* GSFC/M J MUMMA  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 376 THE CATHOLIC UNIVERSITY OF AMERICA 3556**  
 THE DRIVERS OF CORONAL AND INTERPLANETARY SHOCKS  
 01/19/1999 - 01/31/2001 FY00: \$0 Total: \$59,600  
*Prin. Invest.:* N GOPALSWAMY  
*Tech. Officer:* GSFC/M ACUNA  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 377 THE CATHOLIC UNIVERSITY OF AMERICA 3557**  
 THE SUN-EARTH CONNECTION: SOLAR PHYSICS, PHYSICS OF THE HELIO-  
 SPHERE, AND SPACE WEATHER  
 01/27/1999 - 01/31/2000 FY00: \$0 Total: \$67,540  
*Prin. Invest.:* V ANDRETTA  
*Tech. Officer:* GSFC/A I POLAND  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 380 THE CATHOLIC UNIVERSITY OF AMERICA 3558**  
 INVESTIGATION OF X-RAY AND GAMMA-RAYS FROM SOLAR FLARES AND  
 PLANETARY TYPE BODIES  
 02/12/1999 - 03/31/2001 FY00: \$307,606 Total: \$812,985  
*Prin. Invest.:* R D STARR  
*Tech. Officer:* GSFC/L ORWIG  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 418 THE CATHOLIC UNIVERSITY OF AMERICA 3559**  
 MAINTENANCE OF THE ISTP/IACG CDAW DATA BASE  
 08/19/1999 - 08/14/2001 FY00: \$5,500 Total: \$35,500  
*Prin. Invest.:* N GOPALSWAMY  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 5 445 THE CATHOLIC UNIVERSITY OF AMERICA 3560**  
 INFRARED SPECTROSCOPY OF COMETS: AN OBSERVATIONAL AND  
 EXPERIMENTAL STUDY OF COMETARY COMPOSITION AND  
 04/20/2000 - 05/31/2001 FY00: \$4,000 Total: \$4,000  
*Prin. Invest.:* N DELLO RUSSO  
*Tech. Officer:* GSFC/M J MUMMA  
*CASE Category:* 13 - PHYSICS

**NCC 5 452 THE CATHOLIC UNIVERSITY OF AMERICA 3561**  
 CHEMICAL/PHYSICAL PROPERTIES OF PLANETARY & ASTRO- PHYSICAL  
 MOLECULES  
 02/03/2000 - 04/30/2005 FY00: \$164,968 Total: \$164,968  
*Prin. Invest.:* T THORN  
*Tech. Officer:* GSFC/J E ALLEN  
*CASE Category:* 12 - CHEMISTRY

**NCC 5 504 THE CATHOLIC UNIVERSITY OF AMERICA 3562**  
 SPATIAL-SPECTRAL MAPPING OF CO AND OTHER EMISSIONS IN COMETS,  
 AND OF WATER IN MARS ATMOSPHERE  
 06/27/2000 - 03/31/2001 FY00: \$6,400 Total: \$6,400  
*Prin. Invest.:* M A DISANTI  
*Tech. Officer:* GSFC/M J MUMMA  
*CASE Category:* 13 - PHYSICS

**NCC 5 512 THE CATHOLIC UNIVERSITY OF AMERICA 3563**  
 RENEWAL OF COOP AGREEMENT NCC-418 MAINTENANCE OF CDAW DATA  
 BASE.  
 08/24/2000 - 08/31/2001 FY00: \$7,000 Total: \$7,000  
*Prin. Invest.:* N GOPALSWAMY  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NGT 1 52137 THE CATHOLIC UNIVERSITY OF AMERICA 3564**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/19/1996 - 06/30/1999 FY00: -\$1 Total: \$66,000  
*Prin. Invest.:* J A DULEY, R PARASURAMAN  
*Tech. Officer:* LARC/P C SCHUTTE, LARC/A T POPE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 1 52190 THE CATHOLIC UNIVERSITY OF AMERICA 3565**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/20/1998 - 06/30/2001 FY00: \$22,001 Total: \$54,001  
*Prin. Invest.:* S M GALSTER, R PARASURAMAN  
*Tech. Officer:* LARC/P C SHUTTE, LARC/A T POPE  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NGT 5 89 THE CATHOLIC UNIVERSITY OF AMERICA 3566**  
 EXAMINING THE KINEMATICS OF THE NARROW-LINE GAS IN ACTIVE  
 GALAXIES USING STIS  
 05/27/1999 - 06/30/2000 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* D CRENSHAW  
*Tech. Officer:* GSFC/G SOFFEN  
*CASE Category:* 13 - PHYSICS

**NAG 5 4724 UNIVERSITY OF DISTRICT OF COLUMBIA 3567**  
 SATURDAY ACADEMY PROGRAM  
 06/19/1997 - 03/31/2001 FY00: \$295,048 Total: \$1,768,980  
*Prin. Invest.:* W R COLEMAN  
*Tech. Officer:* GSFC/L RANDOLPH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9545 UNIVERSITY OF DISTRICT OF COLUMBIA 3568**  
 REMOTE SENSING SPECTRAL IDENTIFICATION OF FRESHWATER  
 PLANKTON  
 05/03/2000 - 05/14/2001 FY00: \$72,143 Total: \$72,143  
*Prin. Invest.:* H L PHELPS  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 5 196 UNIVERSITY OF DISTRICT OF COLUMBIA 3569**  
 PARTNERSHIP AWARD WITH MINORITY UNIVERSITIES AND C  
 05/22/1997 - 06/30/2000 FY00: \$0 Total: \$400,000  
*Prin. Invest.:* G WYCHE-MOORE  
*Tech. Officer:* GSFC/E ENGMAN  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 5 421 UNIVERSITY OF DISTRICT OF COLUMBIA 3570**  
 ANACOSTIA RIVER INSTITUTE FOR REMOTE SENSING: A COMMUNITY  
 REMOTESENSING PROGRAM  
 09/21/1999 - 09/30/2001 FY00: \$50,000 Total: \$100,000  
 Prin. Invest.: G WYCHE-MOORE  
 Tech. Officer: GSFC/D T TOLL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

## FLORIDA

**NAG10 195 BETHUNE - COOKMAN COLLEGE 3571**  
 OPERATION OF THE CENTER FOR SPACE EDUCATION  
 09/11/1996 - 09/30/2001 FY00: \$355,161 Total: \$1,569,953  
 Prin. Invest.: G W BECKLES, A E LONG  
 Tech. Officer: KSC/S DUTCHAK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG10 220 BETHUNE - COOKMAN COLLEGE 3572**  
 NASA MINORITY INSTITUTION ENTREPRENEURIAL PARTNER SHIP GRANT  
 06/27/1997 - 12/31/1999 FY00: \$0 Total: \$1,600,000  
 Prin. Invest.: A D TAYLOR  
 Tech. Officer: KSC/G BUCKINGHAM  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG10 269 BETHUNE - COOKMAN COLLEGE 3573**  
 NASA/FLORIDA MINORITY INSTITUTION ENTREPRENEURIAL PARTNERSHIP  
 09/13/1999 - 08/16/2001 FY00: \$300,000 Total: \$900,000  
 Prin. Invest.: A D TAYLOR  
 Tech. Officer: KSC/W B WILLIAMS  
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

**NCC 5 426 BETHUNE - COOKMAN COLLEGE 3574**  
 A BETTER, FASTER AND INEXPENSIVE PHOTOGRAMMETRY SYSTEM  
 09/07/1999 - 08/31/2001 FY00: \$100,000 Total: \$199,991  
 Prin. Invest.: E F EKPO  
 Tech. Officer: GSFC/S E HETHERINGTON  
 CASE Category: 13 - PHYSICS

**NAG 5 6712 ECKERD COLLEGE 3575**  
 EXPERIMENTAL STUDIES OF THE INFRARED SPECTRA OF COSMIC-TYPE  
 ICES  
 12/22/1997 - 12/31/2000 FY00: \$9,000 Total: \$25,500  
 Prin. Invest.: D SON  
 Tech. Officer: GSFC/M MOORE  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1103 ECKERD COLLEGE 3576**  
 JOVE  
 10/21/1994 - 05/31/1999 FY00: -\$930 Total: \$101,330  
 Prin. Invest.: J B THOMPSON, S M STANCZYK  
 Tech. Officer: MSFC/F SIX  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG10 213 EDWARD WATERS COLLEGE 3577**  
 CLASSROOM OF THE FUTURE CENTER (COTF) MASTER SCIENCE  
 TEACHER CERTIFICATION (MTCP)  
 09/01/1997 - 04/30/2000 FY00: \$0 Total: \$400,000  
 Prin. Invest.: G BUCKINGHAM  
 Tech. Officer: KSC/E JOHNSON  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 5199 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY 3578**  
 ICE CONTENT AND ODD-OXYGEN IN NOCTILUCENT-CLOUDS (ICON)  
 06/18/1998 - 03/28/2001 FY00: \$0 Total: \$313,791  
 Prin. Invest.: P J ESPY  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5265 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY 3579**  
 FIRST YEAR FUNDING/ CYROGENIC WHOLE AIR SAMPLING OF CARBON  
 DIOXIDE IN THE UPPER MESOSPHERE  
 04/12/2000 - 03/23/2003 FY00: \$122,200 Total: \$122,200  
 Prin. Invest.: P W ERDMAN  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NCA 1 133 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY 3580**  
 1996 AGATE - GENERAL AVIATION  
 07/23/1996 - 10/31/2000 FY00: \$912,500 Total: \$3,316,000  
 Prin. Invest.: S HAMPTON  
 Tech. Officer: LARC/B J HOLMES, LARC/M H DURHAM  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 3 685 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY 3581**  
 SILICON CARBIDE DIODE MIXERS FOR IMPROVED SAFETY IN AIRCRAFT  
 RF AVIONICS  
 03/04/1999 - 01/26/2001 FY00: \$24,000 Total: \$49,000  
 Prin. Invest.: A HELFRICK  
 Tech. Officer: GRC/P G NEUDECK  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 2 1384 FLA INTERNATIONAL UNIVERSITY 3582**  
 DEVELOPING AN ADVANCED ENVIRONMENT FOR COLLABORATIVE  
 COMPUTING BY AUGMENTING POSTDOC  
 09/15/1999 - 12/31/2001 FY00: \$43,000 Total: \$143,000  
 Prin. Invest.: I R FERNANDEZ  
 Tech. Officer: ARC/H T STEWART, ARC/S LAU  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1440 FLA INTERNATIONAL UNIVERSITY 3583**  
 SPECIFICATION & ANALYSIS OF SOFTWARE ARCHITECTURES OF HIGH  
 ASSURANCE SYSTEMS  
 09/26/2000 - 09/14/2001 FY00: \$97,157 Total: \$97,157  
 Prin. Invest.: Y DENG, X HE  
 Tech. Officer: ARC/B J COLLINS/D JAMES  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3071 FLA INTERNATIONAL UNIVERSITY 3584**  
 APPLICATION OF HIGH RESOLUTION DIGITAL TOPOGRAPHIC DATA TO THE  
 DETECTION OF IMPIENT SINKHOLE ...  
 09/15/1995 - 09/30/1999 FY00: \$808 Total: \$222,972  
 Prin. Invest.: D WHITMAN  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3826 FLA INTERNATIONAL UNIVERSITY 3585**  
 BASIC RESEARCH IN ATOMIC, MOLECULAR AND OPTICAL PHYSICS IN  
 SUPPORT OF NASA STRATEGIC ENTERPRISES  
 01/29/1997 - 01/31/2001 FY00: \$0 Total: \$298,794  
 Prin. Invest.: K HARDY  
 Tech. Officer: GSFC/R HARTLE  
 CASE Category: 11 - ASTRONOMY

## FLORIDA

## NASA'S UNIVERSITY PROGRAM

**NAG 5 6531 FLA INTERNATIONAL UNIVERSITY 3586**  
 HIGH PERFORMANCE DATABASE MANAGEMENT WITH APPLICATION TO  
 EARTH SCIENCES  
 11/03/1997 - 04/30/2000 FY00: \$0 Total: \$2,000,000  
 Prin. Invest.: N RISHE  
 Tech. Officer: GSFC/J MALONE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6556 FLA INTERNATIONAL UNIVERSITY 3587**  
 MASTAP AWARD  
 11/03/1997 - 08/31/1999 FY00: \$0 Total: \$180,000  
 Prin. Invest.: C BRAIN  
 Tech. Officer: GSFC/M MATEU  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6830 FLA INTERNATIONAL UNIVERSITY 3588**  
 THE FIU CENTER OF EXCELLENCE FOR RESEARCH AND INSTRUCTION IN  
 REMOTE SENSING TECHNOLOGY  
 01/20/1998 - 01/31/1999 FY00: -\$961 Total: \$89,039  
 Prin. Invest.: D WITHMAN  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7325 FLA INTERNATIONAL UNIVERSITY 3589**  
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS  
 04/24/1998 - 04/30/2000 FY00: \$0 Total: \$1,400  
 Prin. Invest.: J R WEBB  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8156 FLA INTERNATIONAL UNIVERSITY 3590**  
 AVIRIS IMAGE CLASSIFICATION USING PHYTOPLANKTON REFLECTANCE  
 SPECTRA  
 02/02/1999 - 01/31/2001 FY00: \$0 Total: \$14,222  
 Prin. Invest.: L L RICHARDSON  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8791 FLA INTERNATIONAL UNIVERSITY 3591**  
 A STUDY OF THE FINAL PRODUCT STATES OF THE DISSOCIATIVE RECOM-  
 BINATION REACTION BY TOF SPECTROSCOPY  
 08/31/1999 - 08/31/2001 FY00: \$58,000 Total: \$157,416  
 Prin. Invest.: K HARDY Prin. Invest.: NONE  
 Tech. Officer: GSFC/R HARTLE  
 CASE Category: 13 - PHYSICS

**NAG 5 9478 FLA INTERNATIONAL UNIVERSITY 3592**  
 HIGH PERFORMANCE DATABASE MANAGEMENT WITH APPLICATION TO  
 EARTH SCIENCE  
 04/25/2000 - 04/30/2001 FY00: \$500,000 Total: \$500,000  
 Prin. Invest.: N RISHE  
 Tech. Officer: GSFC/D MENCHAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG10 211 FLA INTERNATIONAL UNIVERSITY 3593**  
 INTENSIVE SCIENTIFIC INTERCURRICULAR ONSITE EDUCATION PROJECT  
 V.I.S.I.O.N  
 09/01/1997 - 08/31/1999 FY00: \$0 Total: \$800,000  
 Prin. Invest.: G ROIG, NONE  
 Tech. Officer: KSC/E JOHNSON  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG10 212 FLA INTERNATIONAL UNIVERSITY 3594**  
 APPLIED RESEARCH IN INDUSTRIAL & SYSTEMS ENGINEERING (ARISE)  
 CENTER  
 08/29/1997 - 12/31/2000 FY00: \$0 Total: \$399,960  
 Prin. Invest.: M A CENTENO  
 Tech. Officer: KSC/A MITSKEVICH  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG10 229 FLA INTERNATIONAL UNIVERSITY 3595**  
 CLCS DESIGN PROGRAM  
 09/17/1997 - 11/30/1999 FY00: -\$1,669 Total: \$60,178  
 Prin. Invest.: J JACKO, M RESNICK  
 Tech. Officer: KSC/GBUCKINGHAM  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG10 251 FLA INTERNATIONAL UNIVERSITY 3596**  
 MATHEMATICS, SCIENCE & TECH ACHIEVEMENT (MSTA)  
 09/23/1998 - 09/22/2001 FY00: \$99,998 Total: \$299,994  
 Prin. Invest.: C MENDEZ  
 Tech. Officer: KSC/R MC KINNEY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG10 254 FLA INTERNATIONAL UNIVERSITY 3597**  
 PROGRAM  
 05/01/1999 - 07/01/2001 FY00: \$199,991 Total: \$399,982  
 Prin. Invest.: C MENDEZ  
 Tech. Officer: KSC/R MCKINNEY  
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

**NAG10 259 FLA INTERNATIONAL UNIVERSITY 3598**  
 MSTA - MATH, SCIENCE & TECHNOLOGY ACHIEVEMENT  
 05/01/1999 - 08/14/2001 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: I BECCERA-FERNANDEZ  
 Tech. Officer: KSC/S ROBERTS  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG10 268 FLA INTERNATIONAL UNIVERSITY 3599**  
 PROJECT VISION: VERY INTENSIVE SCIENTIFIC INTERCURRICULAR  
 ON-SITE EDUCATION  
 09/09/1999 - 08/31/2001 FY00: \$100,000 Total: \$497,727  
 Prin. Invest.: G A ROIG  
 Tech. Officer: KSC/R J MCKINNEY  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG10 292 FLA INTERNATIONAL UNIVERSITY 3600**  
 SPACEPORT TECHNOLOGY CENTER AND WORK INSTRUCTION DELIVERY  
 INITIATIVE  
 09/29/2000 - 08/31/2001 FY00: \$60,238 Total: \$60,238  
 Prin. Invest.: M CENTENO  
 Tech. Officer: KSC/M GROH-HAMMOND  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 1 1866 FLORIDA A&M UNIVERSITY 3601**  
 MICROMECHANICAL CHARACTERIZATION AND TEXTURE ANALYSIS OF  
 DIRECT CAST TITANIUM ALLOY STRIP  
 09/12/1996 - 12/31/1999 FY00: \$0 Total: \$297,954  
 Prin. Invest.: H GARMESTANI  
 Tech. Officer: LARC/B A BAUM  
 CASE Category: 47 - METAL & MATERIALS ENGR



## NASA'S UNIVERSITY PROGRAM

FLORIDA

**NAG 2 1439** **FLORIDA A&M UNIVERSITY** **3602**  
 INVESTIGATION OF THE ELECTRONIC PROPERTIES OF DISTORTED  
 CARBON NANOTUBES  
 09/21/2000 - 08/31/2001 FY00: \$97,322 Total: \$97,322  
 Prin. Invest.: M ENCINOSA  
 Tech. Officer: ARC/B J COLLINS, ARC/D JAMES  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 1759** **FLORIDA A&M UNIVERSITY** **3603**  
 A GRADUATE FELLOWSHIP COMPONENT TO AUGMENT PROGRAM IMAGE  
 06/14/1995 - 06/29/2001 FY00: \$0 Total: \$1,166,379  
 Prin. Invest.: F S HUMPHRIES, F J FOREMAN  
 Tech. Officer: GRC/J E BOYD  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 1971** **FLORIDA A&M UNIVERSITY** **3604**  
 CUBIC BORON NITRIDE ALPHAVOLTAIC DEVICES  
 09/21/1996 - 12/31/1999 FY00: \$0 Total: \$259,505  
 Prin. Invest.: S M DURBIN  
 Tech. Officer: GRC/G C RYBICKI  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2056** **FLORIDA A&M UNIVERSITY** **3605**  
 FLIGHT EFFECTS ON FORWARD RADIATED HSCT FAN NOISE FLIGHT  
 EFFECTS ON FORWARD RADIATED HSCT FAN NOISE  
 09/16/1997 - 09/30/1999 FY00: \$0 Total: \$202,119  
 Prin. Invest.: A KROTHAPALLI  
 Tech. Officer: GRC/R P WOODWARD  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 3 2193** **FLORIDA A&M UNIVERSITY** **3606**  
 ROBUST FAULT DETECTION AND ISOLATION FOR NASA LAUNCH  
 VEHICLES  
 09/01/1998 - 08/31/2001 FY00: \$99,202 Total: \$154,347  
 Prin. Invest.: E G COLLINS  
 Tech. Officer: GRC/T GUO  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 3 2198** **FLORIDA A&M UNIVERSITY** **3607**  
 TURBULENCE BASED ICE PROTECTION SYSTEMS FOR SUPER-COOLED  
 LIQUID DROPLETS  
 09/10/1998 - 06/17/1999 FY00: -\$8,774 Total: \$91,226  
 Prin. Invest.: J A JOHNSON, 111  
 Tech. Officer: GRC/M POTAPCZUK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2387** **FLORIDA A&M UNIVERSITY** **3608**  
 LATTICE-BOLTZMANN TECHNIQUES FOR MULTIPHASE FLOW TRANSPORT  
 IN MICROGRAVITY ENVIRONMENT  
 04/11/2000 - 11/15/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: D CHELLA  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 4 164** **FLORIDA A&M UNIVERSITY** **3609**  
 EVOLUTIONARY ALGORITHMS  
 02/26/1999 - 02/25/2001 FY00: \$100,000 Total: \$176,792  
 Prin. Invest.: M ABDULLAH, F HAMILTON  
 Tech. Officer: DFRC/K GUPTA, DFRC/E COX  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 6631** **FLORIDA A&M UNIVERSITY** **3610**  
 PARTIAL DIFFERENTIAL EQUATION APPROACH TO ATOMIC AND MOLECULAR  
 COLLISIONS  
 12/22/1997 - 12/14/1998 FY00: -\$4,554 Total: \$87,046  
 Prin. Invest.: B SAHA  
 Tech. Officer: GSFC/A TEMKIN  
 CASE Category: 13 - PHYSICS

**NAG 5 7989** **FLORIDA A&M UNIVERSITY** **3611**  
 LINKAGES 2001  
 12/31/1998 - 02/29/2000 FY00: \$0 Total: \$200,000  
 Prin. Invest.: D H AMMONS  
 Tech. Officer: GSFC/J L HARRINGTON, JR.  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9119** **FLORIDA A&M UNIVERSITY** **3612**  
 LINKAGES 2001 PROJECT  
 02/24/2000 - 01/31/2001 FY00: \$500,000 Total: \$500,000  
 Prin. Invest.: J H AMMONS  
 Tech. Officer: GSFC/J MALONE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9420** **FLORIDA A&M UNIVERSITY** **3613**  
 ELECTROCHEMICAL CAPACITORS & HYBRID POWER SOURCES FOR  
 SPACE APPLICATIONS  
 04/11/2000 - 04/30/2001 FY00: \$97,986 Total: \$97,986  
 Prin. Invest.: J ZHENG  
 Tech. Officer: GSFC/J MALONE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG10 214** **FLORIDA A&M UNIVERSITY** **3614**  
 DISCOVER - SBI/NASA INTERSHIPS  
 09/01/1997 - 08/31/2000 FY00: -\$3,386 Total: \$396,614  
 Prin. Invest.: S MOBLEY  
 Tech. Officer: KSC/G BUCKINGHAM  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG10 226** **FLORIDA A&M UNIVERSITY** **3615**  
 CONTROL & CALIBRATION OF ARID  
 09/18/1997 - 09/17/1999 FY00: -\$145 Total: \$144,368  
 Prin. Invest.: R ROBERTS  
 Tech. Officer: KSC/T LIPPITT  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG10 238** **FLORIDA A&M UNIVERSITY** **3616**  
 MINORITY ACCESS TO GRAD ENGR PROGRAM  
 12/17/1997 - 09/30/2000 FY00: \$1,200,000 Total: \$4,473,056  
 Prin. Invest.: F S HUMPHRIES  
 Tech. Officer: KSC/E SMITH  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG10 242** **FLORIDA A&M UNIVERSITY** **3617**  
 MAPSTAP  
 05/13/1998 - 05/31/2001 FY00: \$199,998 Total: \$599,997  
 Prin. Invest.: B SAMUELS  
 Tech. Officer: KSC/E JOHNSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG10 248** **FLORIDA A&M UNIVERSITY** **3618**  
 PRODIGY 2000  
 09/23/1998 - 09/22/2001 FY00: \$100,000 Total: \$300,000  
*Prin. Invest.:* B MCCUNE  
*Tech. Officer:* KSC/R MCKINNEY  
*CASE Category:* 62 - PSYCHOLOGY SOCIAL ASPECTS

**NAG10 262** **FLORIDA A&M UNIVERSITY** **3619**  
 SPACE LIFE SCIENCES TRAINING PROGRAM  
 05/12/1999 - 02/29/2000 FY00: \$0 Total: \$291,549  
*Prin. Invest.:* B SAMUELS  
*Tech. Officer:* KSC/E JOHNSON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG10 264** **FLORIDA A&M UNIVERSITY** **3620**  
 ELECTROSTATIC CHARGING, PRECIPITATION, ADHESION, AND DISSIPATION IN THE MARTIAN ATMOSPHERE  
 08/01/1999 - 07/31/2000 FY00: \$0 Total: \$98,997  
*Prin. Invest.:* F B GROSS  
*Tech. Officer:* KSC/R LEE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG10 267** **FLORIDA A&M UNIVERSITY** **3621**  
 PROJECT DISCOVER II SBI/NASA INTERNSHIPS PROJECT DISCOVER II SBI/NASA INTERNSHIPS  
 09/09/1999 - 08/31/2001 FY00: \$139,424 Total: \$239,424  
*Prin. Invest.:* S C MOBLEY  
*Tech. Officer:* KSC/R J MCKINNEY  
*CASE Category:* 79 - SOCIAL SCIENCE, OTHER

**NAG10 272** **FLORIDA A&M UNIVERSITY** **3622**  
 FAULT TOLERANT ROBOT ANALYSIS AND DESIGN  
 09/27/1999 - 09/20/2000 FY00: \$0 Total: \$92,270  
*Prin. Invest.:* R G ROBERTS  
*Tech. Officer:* KSC/W C JONES  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG10 289** **FLORIDA A&M UNIVERSITY** **3623**  
 WIRELESS SPREAD-SPECTRUM INTERCOMMUNICATION SYSTEM WIRELESS SPREAD-SPECTRUM INTERCOMMUNICATION SYSTEM  
 07/11/2000 - 06/07/2003 FY00: \$96,266 Total: \$96,266  
*Prin. Invest.:* B A HARVEY  
*Tech. Officer:* KSC/F MCKENZIE  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG13 41** **FLORIDA A&M UNIVERSITY** **3624**  
 LABILE AND STABLE SOC POOLS REVEALED BY C-14 AND C-13 SIGNATURES  
 09/27/1996 - 06/26/2000 FY00: \$0 Total: \$288,905  
*Prin. Invest.:* Y P HSIEH  
*Tech. Officer:* SSC/A JOYCE  
*CASE Category:* 54 - ENVIRONMENTAL BIOLOGY

**NAG13 43** **FLORIDA A&M UNIVERSITY** **3625**  
 REMOTE SENSING LAND-USE CLASSIFICATION AND ENHANCEMENT OF AGRICULTURAL PRODUCTION IN SOUTH AFRICA  
 07/24/1995 - 03/31/1999 FY00: -\$6,271 Total: \$286,503  
*Prin. Invest.:* S PANCHOLY  
*Tech. Officer:* SSC/A JOYCE  
*CASE Category:* 43 - CHEMICAL ENGR

**NCC 1 252** **FLORIDA A&M UNIVERSITY** **3626**  
 CENTER FOR NONLINEAR AND NONEQUILIBRIUM AEROSCIENCES (CENNAS)  
 04/23/1997 - 12/31/2000 FY00: \$1,000,000 Total: \$4,000,000  
*Prin. Invest.:* J JOHNSON  
*Tech. Officer:* LARC/W SELLERS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 956** **FLORIDA A&M UNIVERSITY** **3627**  
 A COOPERATIVE RESEARCH PROGRAM IN AERONAUTICAL INFORMATION SCIENCE TECHNOLOGIES  
 07/01/1996 - 02/28/2001 FY00: \$372,623 Total: \$1,316,338  
*Prin. Invest.:* A KROTHAPALLI, L LOURENCO, S WALKER  
*Tech. Officer:* ARC/J C ROSS, ARC/P T SODERMAN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 1005** **FLORIDA A&M UNIVERSITY** **3628**  
 DEVELOPMENT OF A TRANSDERMAL DELIVERY DEVICE FOR MELATONIN IN VIVO  
 08/25/1997 - 07/31/2001 FY00: \$110,031 Total: \$331,337  
*Prin. Invest.:* M S SACHDEVA, NONE  
*Tech. Officer:* ARC/C M WINGET, ARC/G S LEE  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 1018** **FLORIDA A&M UNIVERSITY** **3629**  
 INTEGRATED DESIGN SYSTEMS TECHNOLOGY  
 02/12/1998 - 12/31/1999 FY00: \$0 Total: \$480,263  
*Prin. Invest.:* A KROTHAPALLI  
*Tech. Officer:* ARC/C A SMITH  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 1812** **FLORIDA ATLANTIC UNIVERSITY** **3630**  
 EVALUATION OF STRUCTURE-BORNE NOISE PREDICTION TECHNIQUES (NLPN 95-1224)  
 02/23/1996 - 12/31/1999 FY00: -\$3,797 Total: \$56,203  
*Prin. Invest.:* J M CUSCHIERI, C B BURROUGHS, G P CARROLL  
*Tech. Officer:* LARC/K H LYLE, LARC/R J SILCOX  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 1 1993** **FLORIDA ATLANTIC UNIVERSITY** **3631**  
 BROADBAND FAN NOISE FROM TURBULENT VORTICAL FLOWS INCIDENT ON STATOR VANES  
 01/15/1998 - 04/14/2000 FY00: \$1 Total: \$142,019  
*Prin. Invest.:* S L GLEGG, M DHANAK  
*Tech. Officer:* LARC/J W POSEY, LARC/F FARASSAT  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2115** **FLORIDA ATLANTIC UNIVERSITY** **3632**  
 FUNDAMENTAL ISSUES ON INTERRELATION BETWEEN SAFETY FACTORS AND UNCERTAINTY ANALYSIS  
 10/29/1998 - 06/30/2000 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* T ELISHAKOFF  
*Tech. Officer:* LARC/J H STARNES, JR.  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2023** **FLORIDA ATLANTIC UNIVERSITY** **3633**  
 SPACE COMMUNICATIONS TECHNOLOGY CENTER  
 03/12/1997 - 06/27/2000 FY00: \$163,999 Total: \$1,079,999  
*Prin. Invest.:* W E GLENN, H HELMKEN  
*Tech. Officer:* GRC/T P BIZON  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 2319** **FLORIDA ATLANTIC UNIVERSITY** **3634**  
 MODELING OF THE UNSTEADY INTERNAL FLOWS IN AEROENGINE FLOWS FOR  
 NOISE PREDICTION CODES  
 01/11/2000 - 12/31/2000 FY00: \$97,380 Total: \$97,380  
 Prin. Invest.: S A GLEGG  
 Tech. Officer: GRC/E ENVIA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 3903** **FLORIDA ATLANTIC UNIVERSITY** **3635**  
 ONE- AND MULTIDIMENSIONAL RADIATION HYDRODYNAMICS NOVAE  
 03/03/1997 - 02/14/1999 FY00: \$0 Total: \$60,000  
 Prin. Invest.: S W BRUENN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG10 193** **FLORIDA ATLANTIC UNIVERSITY** **3636**  
 STUDY PROPERTIES OF SPRAYED ZINC  
 04/26/1996 - 12/31/1998 FY00: -\$2,299 Total: \$136,044  
 Prin. Invest.: W H HARTT  
 Tech. Officer: KSC/R LEE  
 CASE Category: 13 - PHYSICS

**NAS 3 26956** **FLORIDA ATLANTIC UNIVERSITY** **3637**  
 ACTS PROPAGATION EXPERIMENTS  
 06/21/1993 - 09/01/2000 FY00: \$52,794 Total: \$366,278  
 Prin. Invest.: H F HELMKEN  
 Tech. Officer: GRC/R J GUNDERMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 2 1141** **FLORIDA ATLANTIC UNIVERSITY** **3638**  
 ACHIEVING HIGH SOFTWARE RELIABILITY  
 09/17/1999 - 09/30/2000 FY00: \$85,762 Total: \$135,762  
 Prin. Invest.: T G KHOSGOFTAR  
 Tech. Officer: ARC/S YASSINI, ARC/D OZBURN  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5264** **FLORIDA ATLANTIC UNIVERSITY** **3639**  
 AN INVESTIGATION OF HINGELESS-ROTOR TRIM & STABILITY WITH  
 EXPERIMENTAL CORRELATION  
 04/23/1998 - 12/31/2000 FY00: \$0 Total: \$20,143  
 Prin. Invest.: G H GEONKAR  
 Tech. Officer: ARC/T H MAIER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2061** **FLORIDA INSTITUTE OF TECHNOLOGY** **3640**  
 DELAMINATION MODELING OF COMPOSITES FOR IMPROVED CRASH ANAL-  
 YSIS.  
 05/06/1998 - 05/19/1999 FY00: -\$1 Total: \$42,972  
 Prin. Invest.: D C FLEMING  
 Tech. Officer: LARC/K E JACKSON, LARC/L E JONES  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 1 2260** **FLORIDA INSTITUTE OF TECHNOLOGY** **3641**  
 MODELING COMPOSITES LAMINATE CRUSHING FOR CRASH ANALYSIS  
 01/12/2000 - 05/14/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: D C FLEMING  
 Tech. Officer: LARC/L E JONES  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 2 1171** **FLORIDA INSTITUTE OF TECHNOLOGY** **3642**  
 AUTOMATIC SCHEDULING OF TELESCOPE OBSERVATIONS ON THE SARA.9  
 METER KITT PEAK TELESCOPE USING THE...  
 12/16/1997 - 03/31/2000 FY00: \$0 Total: \$54,560  
 Prin. Invest.: R A MORRIS  
 Tech. Officer: ARC/J L BRESINA  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 3103** **FLORIDA INSTITUTE OF TECHNOLOGY** **3643**  
 WHITE DWARF EVOLUTION AND AGE AND EVOLUTION OF THE GALAXY  
 10/11/1995 - 10/14/2000 FY00: \$0 Total: \$173,000  
 Prin. Invest.: M A WOOD  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3886** **FLORIDA INSTITUTE OF TECHNOLOGY** **3644**  
 BABY MACHINE ANALYSIS OF CELLULAR GRAVITY SENSITIVE  
 03/04/1997 - 04/30/1999 FY00: \$0 Total: \$101,011  
 Prin. Invest.: C HELMSTETTER  
 Tech. Officer: GSFC/T SCOTT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4897** **FLORIDA INSTITUTE OF TECHNOLOGY** **3645**  
 CRRES AND GEOSYNCHRONOUS OBSERVATIONS OF PLASMA SPHERICAL AMICS  
 06/24/1997 - 06/30/2000 FY00: \$0 Total: \$120,963  
 Prin. Invest.: D B MOLDWIN  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 8 1582** **FLORIDA INSTITUTE OF TECHNOLOGY** **3646**  
 "NEW CELL CULTURE TECHNOLOGY"  
 03/01/1999 - 11/30/2002 FY00: \$127,000 Total: \$227,000  
 Prin. Invest.: C HELMSTALTER  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 5 50257** **FLORIDA INSTITUTE OF TECHNOLOGY** **3647**  
 TECHNOLOGIES FOR ASSESSING THE EFFECTS OF LONG-TERM SPACE  
 HABITATION ON CELLULAR AGING STUDENT: K  
 07/09/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: C HELMSTETTER  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50290** **FLORIDA INSTITUTE OF TECHNOLOGY** **3648**  
 THE LUMINOSITY FUNCTION & THE CHROMOSPHERIC ACTIVITY-AGE  
 RELATION FOR WHITE DWARF STARS IN COMMON PROPER  
 06/27/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: T OSWALT  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT10 52621** **FLORIDA INSTITUTE OF TECHNOLOGY** **3649**  
 TRAINING GRANT UNDER A GRADUATE STUDENT RESEARCHERS  
 PROGRAM  
 06/22/1999 - 07/30/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: R LANIER  
 Tech. Officer: KSC/J MEDINA  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## FLORIDA

## NASA'S UNIVERSITY PROGRAM

**NGT10 52622**      **FLORIDA INSTITUTE OF TECHNOLOGY**      **3650**  
 TRAINING GRANT UNDER A GRADUATE STUDENT RESEARCHERS  
 PROGRAM  
 07/02/1999 - 07/30/2000      FY00: \$0      Total: \$22,000  
*Prin. Invest.:* M BUSH  
*Tech. Officer:* KSC/R WHEELER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG10 196**      **FLORIDA MEMORIAL COLLEGE**      **3651**  
 MINORITY AVIATION CAREER AWARENESS PROGRAM  
 09/24/1996 - 09/30/1999      FY00: -\$27,532      Total: \$302,463  
*Prin. Invest.:* D T COLEMAN  
*Tech. Officer:* KSC/J DIGGS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG10 247**      **FLORIDA MEMORIAL COLLEGE**      **3652**  
 DEVELOP A SCIENCE & TECH INITIATIVE FOR AFRICAN AMERICAN &  
 OTHER UNDER-REPRESENTED STUDENTS  
 08/01/1998 - 08/31/2001      FY00: \$80,032      Total: \$527,713  
*Prin. Invest.:* H HUISSO  
*Tech. Officer:* KSC/R MC KINNEY  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NAG 1 1771**      **FLORIDA STATE UNIVERSITY**      **3653**  
 HIGH RESOLUTION NUMERICAL SIMULATIONS AND DIAGNOS- TIC  
 STUDIES OF ATMOSPHERIC TRANSPORT DURING PEM-  
 10/18/1995 - 02/17/1999      FY00: \$4,577      Total: \$530,789  
*Prin. Invest.:* T N KRISHNAMURTI, H E FUELBERG  
*Tech. Officer:* LARC/J M HOELL, JR.  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 1776**      **FLORIDA STATE UNIVERSITY**      **3654**  
 JET AEROACOUSTICS: NOISE GENERATION MECHANISMS AND PREDIC-  
 TION  
 10/26/1995 - 08/31/1999      FY00: -\$2      Total: \$255,000  
*Prin. Invest.:* C W TAM  
*Tech. Officer:* LARC/J S PREISSER, LARC/T D NORUM  
*CASE Category:* 13 - PHYSICS

**NAG 1 1889**      **FLORIDA STATE UNIVERSITY**      **3655**  
 PREDICTION OF COMPRESSIBLE JET FLOW FIELDS AND AERODYNAMIC  
 SOUND FIELD  
 01/09/1997 - 12/31/2000      FY00: \$0      Total: \$434,508  
*Prin. Invest.:* M Y HUSSANI  
*Tech. Officer:* LARC/J M SEINER, LARC/M K PONTON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 1986**      **FLORIDA STATE UNIVERSITY**      **3656**  
 MICRO-AND MACRO-FLUID DYNAMICS AND ACOUSTICS OF RESONANT  
 LINERS  
 01/02/1998 - 12/31/2000      FY00: \$45,000      Total: \$225,000  
*Prin. Invest.:* K W TAM  
*Tech. Officer:* LARC/W R WATSON, LARC/T L PARROTT  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2078**      **FLORIDA STATE UNIVERSITY**      **3657**  
 NOISE SUPPRESSION OF HEATED SUPERSONIC JETS BY WATER INJE-  
 CTION  
 06/16/1998 - 04/30/2001      FY00: \$84,900      Total: \$219,421  
*Prin. Invest.:* A KROTHAPALLI, L LOURENCO  
*Tech. Officer:* LARC/M K NORUM, LARC/M K PONTON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2127**      **FLORIDA STATE UNIVERSITY**      **3658**  
 DYNAMICAL FACTORS CONTROLLING OZONE, OH AND AEROSOL LEVELS  
 OVER THE PEM-TROPICS B REGION  
 01/20/1999 - 12/31/2001      FY00: \$75,796      Total: \$149,625  
*Prin. Invest.:* T N KRISHNAURTI  
*Tech. Officer:* LARC/J R RAPER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 2145**      **FLORIDA STATE UNIVERSITY**      **3659**  
 AIRFRAME-JET ENGINE INTEGRATION NOISE  
 03/30/1999 - 12/31/2001      FY00: \$100,000      Total: \$200,000  
*Prin. Invest.:* C K TAM  
*Tech. Officer:* LARC/R R ANTCLIFF  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 1098**      **FLORIDA STATE UNIVERSITY**      **3660**  
 NUMERICAL SIMULATIONS & DIAGNOSTIC STUDIES OF STM OSPHERIC  
 TRANSPORT DURING SONEX  
 12/30/1996 - 12/31/1999      FY00: \$0      Total: \$184,934  
*Prin. Invest.:* H E FUELBERG  
*Tech. Officer:* ARC/E P CONDON  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 2 1183**      **FLORIDA STATE UNIVERSITY**      **3661**  
 DEVELOPMENT OF TOOLS & SUPPORT OF PIV MEASUREMENTS IN THE  
 NASA-AMES 80X120 WIND TUNNEL  
 02/27/1998 - 12/31/1998      FY00: -\$2,498      Total: \$27,502  
*Prin. Invest.:* L M LOURENCO  
*Tech. Officer:* ARC/G K YAMAUCHI  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 1841**      **FLORIDA STATE UNIVERSITY**      **3662**  
 THERETICAL STUDIES OF LIQUID HELIUM NEAR THE SUPER FLUID TRAN-  
 SITION  
 05/01/1996 - 01/08/2001      FY00: \$64,000      Total: \$280,000  
*Prin. Invest.:* E MANOUSAKIS, NONE  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 13 - PHYSICS

**NAG 3 1885**      **FLORIDA STATE UNIVERSITY**      **3663**  
 FLUID PHYSICS IN STOCHASTIC ACCELERATION ENVIRONMENT  
 06/17/1996 - 06/16/2001      FY00: \$109,965      Total: \$434,901  
*Prin. Invest.:* J VINALS  
*Tech. Officer:* GRC/A CHAIT  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 3 2102**      **FLORIDA STATE UNIVERSITY**      **3664**  
 NUMERICAL SIMULATION OF SCREECH TONES FROM SUPERSONIC JETS:  
 PHYSICS & PREDICTIONS  
 12/24/1997 - 11/30/2001      FY00: \$85,000      Total: \$247,500  
*Prin. Invest.:* C K TAM  
*Tech. Officer:* GRC/K Q ZAMAN  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2327**      **FLORIDA STATE UNIVERSITY**      **3665**  
 ADVANCED COMPUTATIONAL AEROACOUSTICS METHODS FOR FAN  
 NOISE PREDICTIONS  
 02/07/2000 - 01/11/2003      FY00: \$100,000      Total: \$100,000  
*Prin. Invest.:* C TAM  
*Tech. Officer:* GRC/E ENVIA  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2445** **FLORIDA STATE UNIVERSITY** **3666**  
 LATTIC-BOLTZMANN TECHNIQUES FOR MULTIPHASE FLOW TRANSPORT  
 IN MICROGRAVITY ENVIRONMENT  
 05/25/2000 - 05/18/2002 FY00: \$39,923 Total: \$39,923  
 Prin. Invest.: D CHELLA  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 4729** **FLORIDA STATE UNIVERSITY** **3667**  
 INITIALIZATION AND HIGH RESOLUTION GLOBAL PREDICTI DATA FROM  
 TRMM PROGRAM AREA: MODELING, ANALYSIS,  
 07/03/1997 - 06/30/2000 FY00: \$59,900 Total: \$378,445  
 Prin. Invest.: T N KRISHNAMURTI  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4752** **FLORIDA STATE UNIVERSITY** **3668**  
 VALIDATING TRMM-DERIVED LATENT HEATING DISTRIBUTIO COMBINED-  
 INSTRU. RETRIEVAL ALGORITHM INCLUD. IMPA  
 06/18/1997 - 05/31/2000 FY00: \$64,500 Total: \$439,500  
 Prin. Invest.: E A SMITH  
 Tech. Officer: GSFC/A J NEGRI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4813** **FLORIDA STATE UNIVERSITY** **3669**  
 STUDIES OF VARIABLE CLIMATE PROCESS  
 06/19/1997 - 09/30/1999 FY00: \$0 Total: \$163,925  
 Prin. Invest.: W DEWAR  
 Tech. Officer: GSFC/E J LINDSTROM  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 4873** **FLORIDA STATE UNIVERSITY** **3670**  
 USING NASA FULL PHYSICS ADJOINT OF THE GEOS-1 GCM ANALYSIS,  
 SENSITIVITY ANALYSIS AND OPTIMAL SENSOR  
 07/03/1997 - 05/31/2000 FY00: \$44,860 Total: \$323,436  
 Prin. Invest.: I NAVON  
 Tech. Officer: GSFC/M HALL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4921** **FLORIDA STATE UNIVERSITY** **3671**  
 SIBERIAN PERMAFROST: APPLICATIONS TO MARS  
 07/07/1997 - 05/31/2000 FY00: \$0 Total: \$117,372  
 Prin. Invest.: D FRIEDMANN  
 Tech. Officer: GSFC/M A MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 6258** **FLORIDA STATE UNIVERSITY** **3672**  
 AN INTERCOMPARISON OF THE INFLUENCE OF VEGETATION SURFACE-AT-  
 MOSPHERE WATER EXCHANGE AND BOUNDARY LAY  
 08/27/1997 - 01/31/2001 FY00: \$60,000 Total: \$350,000  
 Prin. Invest.: E SMITH  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6325** **FLORIDA STATE UNIVERSITY** **3673**  
 ADVANCED DATA ASSIMILATION INTO OCEAN CIRCULATION MODELS  
 DRIVEN BY NSCAT DATA & ENSO IMPACTS ON NORT  
 10/07/1997 - 08/31/1999 FY00: \$9 Total: \$230,009  
 Prin. Invest.: J O'BRIEN  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6665** **FLORIDA STATE UNIVERSITY** **3674**  
 COMBINING SSM/I,T/2 AND GOES MEASUREMENTS FOR A SATELLITE-  
 BASED ATMOSPHERIC WATER BUDGET OF  
 11/25/1997 - 11/30/2000 FY00: \$170,000 Total: \$495,000  
 Prin. Invest.: E A SMITH  
 Tech. Officer: GSFC/J C DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7254** **FLORIDA STATE UNIVERSITY** **3675**  
 ANOMALOUS HEAT BUDGETS IN THE INTERIOR PACIFIC OCEAN ON  
 SEASONAL-TO-INTERANNUAL TIMESCALES AND  
 05/14/1998 - 04/30/2001 FY00: \$0 Total: \$87,500  
 Prin. Invest.: J J O'BRIEN  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 7302** **FLORIDA STATE UNIVERSITY** **3676**  
 RETRIEVAL OF SURFACE RADIATION FLUXES OVER BOREAS SNOW  
 REGIME FROM GOES 8 IMAGERY FOR APPLICATIONS T  
 05/04/1998 - 10/31/2000 FY00: \$28,667 Total: \$165,402  
 Prin. Invest.: E A SMITH  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7577** **FLORIDA STATE UNIVERSITY** **3677**  
 "REDUCTION AND ANALYSIS OF LEO SATELLITE MAGNETIC FIELD  
 DATA"(SENH98-0077)  
 08/04/1998 - 01/31/2001 FY00: \$65,000 Total: \$163,000  
 Prin. Invest.: J C CAIN  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7618** **FLORIDA STATE UNIVERSITY** **3678**  
 ANNUAL MARINE PRIMARY PRODUCTION ALGORITHM DEVELOP MENT  
 AND APPLICATION TO MODIS DATA  
 09/08/1998 - 07/31/2001 FY00: \$52,036 Total: \$156,053  
 Prin. Invest.: R L IVERSON  
 Tech. Officer: GSFC/W ESAIAS  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 7630** **FLORIDA STATE UNIVERSITY** **3679**  
 ZONAL PROPAGATION OF NONLINEAR OCEANIC ANOMALIES  
 08/10/1998 - 09/30/2001 FY00: \$155,185 Total: \$335,185  
 Prin. Invest.: W DEWAR  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7648** **FLORIDA STATE UNIVERSITY** **3680**  
 "THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO  
 PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS  
 09/01/1998 - 12/31/1999 FY00: \$0 Total: \$36,000  
 Prin. Invest.: J O'BRIEN  
 Tech. Officer: GSFC/B W MESSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7718** **FLORIDA STATE UNIVERSITY** **3681**  
 VALIDATION OF TRMM LEVEL-3 PRECIPITATION DATA OVER AFRICA  
 10/27/1998 - 10/31/2001 FY00: \$94,004 Total: \$180,203  
 Prin. Invest.: S E NICHOLSON  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8284 FLORIDA STATE UNIVERSITY 3682**  
 ANALYSIS OF THE CRUSTAL MAGNETIC FIELD OF MARS  
 02/19/1999 - 02/28/2001 FY00: \$41,000 Total: \$83,200  
 Prin. Invest.: J C CAIN  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8291 FLORIDA STATE UNIVERSITY 3683**  
 THERMODYNAMICS IN LAYERED MODELS  
 02/25/1999 - 02/28/2001 FY00: \$65,091 Total: \$202,258  
 Prin. Invest.: W WEWAR  
 Tech. Officer: GSFC/M RIENECKER  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 8327 FLORIDA STATE UNIVERSITY 3684**  
 ADVANCED DATA ASSIMILATION INTO OCEAN CIRCULATION MODELS  
 DRIVEN BY NSCAT DATA & ENSO IMPACTS NORTH  
 04/28/1999 - 04/30/2001 FY00: \$149,000 Total: \$334,000  
 Prin. Invest.: J J O'BRIEN  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8598 FLORIDA STATE UNIVERSITY 3685**  
 THE IMPACT OF VEGETATION CHANGES IN THE SAHEL ON REGIONAL  
 SCALE HYDROLOGY  
 06/14/1999 - 06/30/2001 FY00: \$81,107 Total: \$131,357  
 Prin. Invest.: S E NICHOLSON  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8647 FLORIDA STATE UNIVERSITY 3686**  
 "STUDY OF THE EVOLUTION OF PRECIPITATION AND CLOUD STRUC-  
 TURES DURING THE LIFE CYCLE ... TRMM AND IS  
 07/19/1999 - 07/31/2001 FY00: \$28,000 Total: \$66,000  
 Prin. Invest.: G LIU  
 Tech. Officer: GSFC/W B ROSSOW  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9410 FLORIDA STATE UNIVERSITY 3687**  
 STUDY THE IMPACT OF TOMS OZONE MEASUREMENTS ON MEASCALE  
 PREDICTION USING MM5 4D-VAR SYSTEM  
 04/11/2000 - 11/30/2000 FY00: \$46,772 Total: \$46,772  
 Prin. Invest.: X ZOU  
 Tech. Officer: GSFC/A J KRUEGER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9662 FLORIDA STATE UNIVERSITY 3688**  
 SUPERENSEMBLE FORECASTS OF PRECIPITATION USING TRMM, TMI & PR  
 ALGORITHMS  
 06/06/2000 - 11/30/2000 FY00: \$55,250 Total: \$55,250  
 Prin. Invest.: T N KRISHNAMURTI  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9845 FLORIDA STATE UNIVERSITY 3689**  
 SIBERIAN PERMAFORST: APPLICATIONS TO MARS  
 08/07/2000 - 07/31/2001 FY00: \$40,492 Total: \$40,492  
 Prin. Invest.: I FRIEDMAN  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9866 FLORIDA STATE UNIVERSITY 3690**  
 RETRIEVAL OF SURFACE RADIATION FLUXES OVER BOREAS SNOW  
 REGIME FROM GOES 8 IMAGERY FOR APPLICATIONS T  
 08/07/2000 - 07/31/2001 FY00: \$28,000 Total: \$28,000  
 Prin. Invest.: E A SMITH  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 10001 FLORIDA STATE UNIVERSITY 3691**  
 016 OF TRMM FIELD CAMPAIGN DATA FOR VALIDATION-APP LICATION  
 STUDIES WITH LEVEL 2 RAIN PROFILE ALGORI  
 09/21/2000 - 11/30/2000 FY00: \$34,435 Total: \$34,435  
 Prin. Invest.: E A SMITH  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1163 FLORIDA STATE UNIVERSITY 3692**  
 ANALYSIS OF ELECTROPHORETIC TRANSPORT  
 08/30/1995 - 08/31/2000 FY00: \$0 Total: \$529,635  
 Prin. Invest.: B R LOCKE  
 Tech. Officer: MSFC/P H RHODES, MSFC/T Y MILLER  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 8 1199 FLORIDA STATE UNIVERSITY 3693**  
 IMPACT STUDIES OF NEWER DATA SETS ON VERY HIGH RE- SOLUTION  
 GLOBAL FORECAST  
 11/13/1995 - 11/12/1998 FY00: -\$1,963 Total: \$213,980  
 Prin. Invest.: T N KRISHNAMURTI  
 Tech. Officer: MSFC/D FITZJARRALD, MSFC/J ROTHERMEL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1537 FLORIDA STATE UNIVERSITY 3694**  
 IMPACT STUDIES OF NEWER DATA SETS (COMEX-3) ON VERY HIGH  
 RESOLUTION GLOBAL FORECASTS  
 06/05/1998 - 10/04/2000 FY00: \$0 Total: \$198,037  
 Prin. Invest.: T N KRISHNAMURTI  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 308 FLORIDA STATE UNIVERSITY 3695**  
 NUMERICAL SIMULATIONS AND DIAGNOSTIC STUDIES OF METEOROLOGICAL  
 CONDITIONS DURING PEM-TROPICS B  
 07/21/1998 - 07/31/2001 FY00: \$65,117 Total: \$183,117  
 Prin. Invest.: H E FUELBERG  
 Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 412 FLORIDA STATE UNIVERSITY 3696**  
 NUMERICAL SIMULATIONS AND DIAGNOSTIC STUDIES RELAT ING  
 METEOROLOGY TO ATMOSPHERIC CHEMISTRY DURING  
 09/18/2000 - 08/31/2003 FY00: \$42,686 Total: \$42,686  
 Prin. Invest.: H E FUELBERG  
 Tech. Officer: LARC/J L RAPER, SR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

## NASA'S UNIVERSITY PROGRAM

FLORIDA

**NCC 5 292** **FLORIDA STATE UNIVERSITY** **3697**  
 HIGH RESOLUTION CARBON EXCHANGE OVER LARGE-SCALE A MAZONIA  
 BASED ON MODELING AND GOES SATELLITE  
 06/25/1998 - 12/31/2000 FY00: \$112,260 Total: \$269,727  
 Prin. Invest.: E A SMITH  
 Tech. Officer: GSFC/D W DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 8 158** **FLORIDA STATE UNIVERSITY** **3698**  
 SOUTHEAST REGIONAL EARTH SCIENCE APPLICATIONS CENTER  
 09/25/1998 - 09/24/2003 FY00: \$0 Total: \$90,000  
 Prin. Invest.: J J O'BRIEN  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 30116** **FLORIDA STATE UNIVERSITY** **3699**  
 SATELLITE DERIVED LAND SURFACE TEMPERATURE & ADJOI NT  
 MODELING TECHNIQUES TO IMPROVE A SPATIAL BIOSP  
 10/01/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: E SMITH  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30158** **FLORIDA STATE UNIVERSITY** **3700**  
 DYNAMICS AND VARIABILITY OF THE NORTH HAWAIIAN RID GE CURRENT  
 FROM SATELLITE ALTIMETRY AND AN  
 08/28/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: J J OBRIEN, LEONARDI  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30164** **FLORIDA STATE UNIVERSITY** **3701**  
 NONLINEAR EXCHANGE PROCESSES BETWEEN THE PACIFIC AND THE  
 INDIAN OCEAN  
 08/31/1998 - 08/31/2002 FY00: \$14,000 Total: \$58,000  
 Prin. Invest.: D NOF, H SIMMONS  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30186** **FLORIDA STATE UNIVERSITY** **3702**  
 THE WATER BALANCE OF EASTERN AFRICAN GREAT LAKES STUDENT:  
 XANGANG YIN  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: S E NICHOLSON  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30191** **FLORIDA STATE UNIVERSITY** **3703**  
 INTER- AND INTRA-ANNUAL VARIABILITY OF THE NORTH AMERICAN  
 MONSOON: A NUMERICAL MODELING STUDY/STU  
 08/19/1999 - 08/31/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: T KRISHNAMURTI  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG10 282** **MIAMI-DADE COMMUNITY COLLEGE** **3704**  
 HOMESTEAD BUSINESS INCUBATOR HOMESTEAD BUSINESS INCUBATOR  
 05/18/2000 - 12/01/2000 FY00: \$915,000 Total: \$915,000  
 Prin. Invest.: E J PADRON  
 Tech. Officer: KSC/D CULBERTSON  
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

**NAG 1 1917** **THE UNIVERSITY OF CENTRAL FLORIDA** **3705**  
 A LOW LOSS MICROSTRIP ANTENNA FOR RADIOMETRIC APPLICATIONS  
 04/24/1997 - 12/31/1999 FY00: -\$12,073 Total: \$114,684  
 Prin. Invest.: C G CHRISTODOULOU, P F WAHID  
 Tech. Officer: LARC/M C BAILEY  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2311** **THE UNIVERSITY OF CENTRAL FLORIDA** **3706**  
 IMPORTANCE OF CONJUGATE HEAT TRANSFER IN TURBINE B LADES AND  
 VANES  
 12/28/1999 - 12/02/2000 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D KAPAT  
 Tech. Officer: GRC/J D HEIDMANN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 6528** **THE UNIVERSITY OF CENTRAL FLORIDA** **3707**  
 DETECTING AND MODELING SPATIAL CANOPY PROPERTIES OF  
 FORESTED LANDSCAPES  
 12/06/1997 - 12/31/1999 FY00: \$0 Total: \$82,343  
 Prin. Invest.: J WEISHAMPEL  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7068** **THE UNIVERSITY OF CENTRAL FLORIDA** **3708**  
 TROPICAL RAINFALL MEASURING MISSION (TRMM) "GROUND TRUTH" IN  
 CENTRAL AND SOUTH FLORIDA  
 03/02/1998 - 02/28/2001 FY00: \$10,000 Total: \$380,528  
 Prin. Invest.: W JONES  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8265** **THE UNIVERSITY OF CENTRAL FLORIDA** **3709**  
 INVESTIGATIONS OF MARTIAN IMPACT CRATER MORPHOLOGIES AND  
 MORPHOMETRIES  
 02/23/1999 - 04/30/2001 FY00: \$46,000 Total: \$91,700  
 Prin. Invest.: N G BARLOW  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9548** **THE UNIVERSITY OF CENTRAL FLORIDA** **3710**  
 TRMM VALIDATION: IMPROVED ZR RELATIONSHIP FROM TEFLUN-B &  
 TROPICAL CYCLONE WINDS & PRECIPITATION  
 05/30/2000 - 05/31/2001 FY00: \$67,667 Total: \$67,667  
 Prin. Invest.: W JONES  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1426** **THE UNIVERSITY OF CENTRAL FLORIDA** **3711**  
 R/S OBJECTIVE OPERATIONAL UTILIZATION OF SATELLITE MICROWAVE  
 SCATTEROMETER OBSERVATION OF TROPICAL  
 01/07/1998 - 12/31/1999 FY00: -\$15,135 Total: \$119,724  
 Prin. Invest.: W L JONES  
 Tech. Officer: MSFC/J M SIMONDS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG10 147** **THE UNIVERSITY OF CENTRAL FLORIDA** **3712**  
 DEVELOPMENT OF ADVANCED LIFE SUPPORT AUTOMATED REMOTE  
 MANIPULATED (ALSARM)  
 11/10/1994 - 11/14/1999 FY00: \$0 Total: \$216,660  
 Prin. Invest.: R W JOHNSON  
 Tech. Officer: KSC/J SAGER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG10 198 THE UNIVERSITY OF CENTRAL FLORIDA 3713**  
 PERMEABLE REACTIVE WALL FIELD SCALE APPLICATION PHASE II AND IV  
 09/30/1996 - 12/30/1999 FY00: -\$8,922 Total: \$540,094  
*Prin. Invest.:* D REINHART  
*Tech. Officer:* KSC/M COLLINS  
*CASE Category:* 54 - ENVIRONMENTAL BIOLOGY

**NAG10 215 THE UNIVERSITY OF CENTRAL FLORIDA 3714**  
 DEVELOPMENT OF ADVANCE LIFE SUPPORT AUTOMATED REMOTE  
 MANIPULATOR END-EFFECTOR (ALSARM) (PHASE II)  
 04/17/1997 - 08/31/2000 FY00: \$0 Total: \$225,000  
*Prin. Invest.:* C GEIGER  
*Tech. Officer:* KSC/J QUINN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG10 227 THE UNIVERSITY OF CENTRAL FLORIDA 3715**  
 APPLIED TRAINING PROJECT MGMT FRAMEWORK FOR ORGANIZATIONAL  
 TRANSITIONS  
 08/04/1997 - 05/31/1999 FY00: \$0 Total: \$126,784  
*Prin. Invest.:* T KOTNOUR  
*Tech. Officer:* KSC/S BARTON  
*CASE Category:* 62 - PSYCHOLOGY SOCIAL ASPECTS

**NAG10 230 THE UNIVERSITY OF CENTRAL FLORIDA 3716**  
 AEROSPACE RESEARCH & EDUCATIONAL NEEDS & ACTIVITIES IN THE  
 STATE OF FL  
 09/17/1997 - 05/30/1999 FY00: -\$1,757 Total: \$65,757  
*Prin. Invest.:* J G KOTNOUR  
*Tech. Officer:* KSC/O MCLENDEZ  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG10 240 THE UNIVERSITY OF CENTRAL FLORIDA 3717**  
 NASA PM EMISSIONS STUDY  
 02/01/1998 - 02/01/2000 FY00: \$0 Total: \$173,208  
*Prin. Invest.:* C COOPER, P.E.  
*Tech. Officer:* KSC/D R DELA PASCUA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG10 244 THE UNIVERSITY OF CENTRAL FLORIDA 3718**  
 NASA - ASEE SUMMER FACULTY FELLOWSHIP PROGRAM  
 05/26/1998 - 12/31/1999 FY00: -\$16,335 Total: \$323,165  
*Prin. Invest.:* R HOSLER  
*Tech. Officer:* KSC/G BUCHINGHAM  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG10 258 THE UNIVERSITY OF CENTRAL FLORIDA 3719**  
 NASA/UCF SPACE SCHOLARS PROGRAM  
 05/01/1999 - 06/30/2001 FY00: \$29,062 Total: \$75,937  
*Prin. Invest.:* J SMITH  
*Tech. Officer:* KSC/R MCKINNEY  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG10 260 THE UNIVERSITY OF CENTRAL FLORIDA 3720**  
 NASA-ASEE SUMMER FACULTY FELLOWSHIP PROGRAM  
 04/16/1999 - 12/31/2000 FY00: \$0 Total: \$321,500  
*Prin. Invest.:* E R HOSLER  
*Tech. Officer:* KSC/G BUCKINGHAM  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG10 273 THE UNIVERSITY OF CENTRAL FLORIDA 3721**  
 KNOWLEDGE EXTRACTION FROM TEXT FOR NASA APPLICATIONS  
 10/08/1999 - 12/30/2000 FY00: \$60,621 Total: \$60,621  
*Prin. Invest.:* F J GOMEZ  
*Tech. Officer:* KSC/C G STEVENSON  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG10 276 THE UNIVERSITY OF CENTRAL FLORIDA 3722**  
 DEVELOPMENT OF ADVANCE LIFE SUPPORT AUTOMATED REMOTE  
 MANIPULATOR END-EFFECTOR (ALSARM) (PHASE II)  
 02/02/2000 - 12/15/2000 FY00: \$19,593 Total: \$19,593  
*Prin. Invest.:* D W JOHNSON  
*Tech. Officer:* KSC/C D QUINCY  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG10 278 THE UNIVERSITY OF CENTRAL FLORIDA 3723**  
 FUNGAL DIVERSITY IN COMPOST STUDIED USING BOTH TRADITIONAL  
 PLANTING AND MOLECULAR APPROACHES  
 02/14/2000 - 02/09/2001 FY00: \$65,000 Total: \$65,000  
*Prin. Invest.:* J F WEISHAMPEL  
*Tech. Officer:* KSC/C QUINCY  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG10 280 THE UNIVERSITY OF CENTRAL FLORIDA 3724**  
 2000 NASA/ASEE SUMMER FACULTY FELLOWSHIP RESEARCH PROGRAM  
 04/10/2000 - 03/31/2002 FY00: \$357,000 Total: \$357,000  
*Prin. Invest.:* D HOSIER  
*Tech. Officer:* KSC/J P GORDON  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NAG10 290 THE UNIVERSITY OF CENTRAL FLORIDA 3725**  
 ASSESSMENT OF TECHNOLOGIES FOR VISUAL GAS LEAK DETECTION  
 07/30/2000 - 12/31/2000 FY00: \$15,043 Total: \$15,043  
*Prin. Invest.:* R SELLAR  
*Tech. Officer:* KSC/C DAVIS  
*CASE Category:* 13 - PHYSICS

**NAG13 98011 THE UNIVERSITY OF CENTRAL FLORIDA 3726**  
 NON-INTRUSIVE MEASUREMENTS OF PRESSURE AND OTHER FLOW  
 VARIABLES  
 07/17/1998 - 10/31/1999 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* J S KAPAT  
*Tech. Officer:* KSC/B ST. CYR  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCA10 35 THE UNIVERSITY OF CENTRAL FLORIDA 3727**  
 JOINT SPONSORED RESEARCH AGREEMENT THE VISION SPACEPORT  
 PROJECT  
 09/15/1998 - 12/31/2000 FY00: \$33,000 Total: \$297,230  
*Prin. Invest.:* R HOFER  
*Tech. Officer:* KSC/C M CLESKEY, KSC/C D SHELTON  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NCA10 41 THE UNIVERSITY OF CENTRAL FLORIDA 3728**  
 FUNDED SPACE ACT AGREEMENT FOR SPACEPORT SYSTEM  
 PROCESSING MODEL  
 02/25/2000 - 09/29/2000 FY00: \$320,000 Total: \$320,000  
*Prin. Invest.:* M MOLLAGHAGEMI  
*Tech. Officer:* KSC/G CATES, KSC/D SHELTON  
*CASE Category:* 49 - ENGINEERING, OTHER



<b>NCC 3 712 THE UNIVERSITY OF CENTRAL FLORIDA 3729</b> ULTRA-LIGHT-WEIGHT, RADATION-RESISTANT, THIN-FILM SOLAR CELLS FOR SPACE ELECTRICPOWER 06/10/1999 - 04/30/2001 FY00: \$70,000 Total: \$120,000 <i>Prin. Invest.:</i> N G DHERE <i>Tech. Officer:</i> GRC/A F HEPP <i>CASE Category:</i> 13 - PHYSICS	<b>NAG 1 1808 UNIVERSITY OF FLORIDA 3737</b> VARIABLE COMPLEXITY STRUCTURAL OPTIMIZATION OF LAUNCH VEHICLES 02/07/1996 - 02/06/1999 FY00: -\$4 Total: \$104,858 <i>Prin. Invest.:</i> R T HAFTKA <i>Tech. Officer:</i> LARC/C J CAMARDA, LARC/T F JOHNSON <i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR
<b>NCC10 20 THE UNIVERSITY OF CENTRAL FLORIDA 3730</b> PILOT SCALE EVALUATION OF NEW TECH CONTROL NOX EMISSIONS AT KSC 05/01/1996 - 03/31/2000 FY00: -\$23,144 Total: \$414,078 <i>Prin. Invest.:</i> C D COOPER, C A CLAUSEN <i>Tech. Officer:</i> KSC/J QUINN <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE	<b>NAG 1 1809 UNIVERSITY OF FLORIDA 3738</b> DEVELOPMENT OF TEMPERATURE SENSITIVE PAINTS FOR WIND TUNNEL 03/04/1996 - 11/30/1999 FY00: \$0 Total: \$300,213 <i>Prin. Invest.:</i> K S SCHANZE <i>Tech. Officer:</i> LARC/B T UPCHURCH, LARC/M MITCHELL <i>CASE Category:</i> 12 - CHEMISTRY
<b>NCC10 35 THE UNIVERSITY OF CENTRAL FLORIDA 3731</b> NASA NOX3; PILOT SCALE EVALUATION OF NEW TECHNOLOG Y FOR NOX CONTROL 02/22/2000 - 10/09/2001 FY00: \$45,000 Total: \$45,000 <i>Prin. Invest.:</i> D C COOPER <i>Tech. Officer:</i> KSC/M COLLINS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 1 1887 UNIVERSITY OF FLORIDA 3739</b> DAMAGE TOLERANCE OF SANDWICH PLATES WITH DEBONDED FACE SHEETS 01/27/1997 - 10/31/1998 FY00: -\$239 Total: \$95,730 <i>Prin. Invest.:</i> B V SANKAR <i>Tech. Officer:</i> LARC/J R CRUZ <i>CASE Category:</i> 41 - AERONAUTICAL ENGR
<b>NGT 5 40069 THE UNIVERSITY OF CENTRAL FLORIDA 3732</b> FLORIDA/NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM 04/28/2000 - 04/29/2001 FY00: \$475,000 Total: \$475,000 <i>Prin. Invest.:</i> S DURRANCE <i>Tech. Officer:</i> GSFC/D DETROYE <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 1 2000 UNIVERSITY OF FLORIDA 3740</b> VARIABLE COMPLEXITY OPTIMIZATION OF COMPOSITE STRU CTURES 01/28/1998 - 01/27/1999 FY00: -\$342 Total: \$125,609 <i>Prin. Invest.:</i> R T HAFTKA <i>Tech. Officer:</i> LARC/J H STARNES, LARC/C A ROSE <i>CASE Category:</i> 41 - AERONAUTICAL ENGR
<b>NGT10 52615 THE UNIVERSITY OF CENTRAL FLORIDA 3733</b> EFFECTIVE ORGANIZATIONAL PERFORMANCE IMPROVEMENT TOOLS USED IN AVIATION & AEROSPACE 07/14/1998 - 07/30/2000 FY00: \$0 Total: \$44,000 <i>Prin. Invest.:</i> T KOTNOUR <i>Tech. Officer:</i> KSC/L GOSPER <i>CASE Category:</i> 49 - ENGINEERING, OTHER	<b>NAG 1 2060 UNIVERSITY OF FLORIDA 3741</b> WAVELET AND MULTIREOLUTION ANALYSIS FOR FINITE ELEMENT NETWORKING PARADIGMS 06/04/1998 - 04/30/2001 FY00: -\$274 Total: \$19,726 <i>Prin. Invest.:</i> A L KURDILA <i>Tech. Officer:</i> LARC/J M HOUSNER <i>CASE Category:</i> 41 - AERONAUTICAL ENGR
<b>NGT10 52625 THE UNIVERSITY OF CENTRAL FLORIDA 3734</b> GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM 08/10/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> D G KOTNOUR <i>Tech. Officer:</i> KSC/L GOSPER <i>CASE Category:</i> 49 - ENGINEERING, OTHER	<b>NAG 1 2087 UNIVERSITY OF FLORIDA 3742</b> VARIABLE FIXED FREQUENCY MICROWAVE PROCESSING OF MATERIALS 07/14/1998 - 03/31/1999 FY00: -\$1 Total: \$19,999 <i>Prin. Invest.:</i> D E CLARK <i>Tech. Officer:</i> LARC/C R REGAN <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR
<b>NGT10 52627 THE UNIVERSITY OF CENTRAL FLORIDA 3735</b> INSTABILITIES IN MAGNETIC FLUIDS IN TERRESTRIAL AND MICROGRAVITY ENVIRONMENTS 07/24/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> D LUO <i>Tech. Officer:</i> KSC/R YOUNGQUIST <i>CASE Category:</i> 13 - PHYSICS	<b>NAG 1 2092 UNIVERSITY OF FLORIDA 3743</b> DEV OF AN INNOVATIVE ALGORITHM FOR AERODYNAMICS- STRUCTURE INTERACTION USING LATTICE BOLTZMANN METH 07/31/1998 - 07/14/2001 FY00: \$110,000 Total: \$232,500 <i>Prin. Invest.:</i> R MEI, W SHYY, L LUO <i>Tech. Officer:</i> LARC/D H RUDY, LARC/R T BIEDRON <i>CASE Category:</i> 41 - AERONAUTICAL ENGR
<b>NAG 1 1474 UNIVERSITY OF FLORIDA 3736</b> A STUDY OF THE INTERACTION OF CONVECTION WITH SOLIDIFICATION 01/12/1993 - 01/10/2000 FY00: -\$1,495 Total: \$505,342 <i>Prin. Invest.:</i> R NARAYANAN, R NARAYANAN <i>Tech. Officer:</i> LARC/W J DEBWAM <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER	<b>NAG 1 2110 UNIVERSITY OF FLORIDA 3744</b> VARIABLE COMPLEXITY STRUCTURAL OPTIMIZATION OF SHELLS 10/13/1998 - 04/15/1999 FY00: -\$720 Total: \$32,208 <i>Prin. Invest.:</i> R T HAFTKA <i>Tech. Officer:</i> LARC/T F JOHNSON, LARC/S J SCOTTI <i>CASE Category:</i> 41 - AERONAUTICAL ENGR

**NAG 1 2133 UNIVERSITY OF FLORIDA 3745**  
 MEMS-BASED ACOUSTIC ARRAY TECHNOLOGY MY 1/3  
 02/11/1999 - 12/31/2001 FY00: \$129,676 Total: \$255,595  
*Prin. Invest.:* M SHEPLAK  
*Tech. Officer:* LARC/R R ANTELIFF  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2161 UNIVERSITY OF FLORIDA 3746**  
 CHEMICALLY TAILORED PARTICLES FOR WIND-TUNNEL SEED ING  
 03/15/1999 - 05/04/2000 FY00: \$0 Total: \$50,003  
*Prin. Invest.:* K S SCHANZE  
*Tech. Officer:* LARC/B T UPCHURCH, LARC/C J OBARA  
*CASE Category:* 12 - CHEMISTRY

**NAG 1 2177 UNIVERSITY OF FLORIDA 3747**  
 VARIABLE COMPLEXITY OPTIMIZATION OF COMPOSITE STRUCTURES  
 04/02/1999 - 01/27/2002 FY00: \$129,137 Total: \$234,163  
*Prin. Invest.:* R T HAFTKA  
*Tech. Officer:* LARC/J H STARNES, JR.  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2188 UNIVERSITY OF FLORIDA 3748**  
 INFORMATION THEORETIC EXTRACTION OF ELECTROENCEPHA LOGRAM  
 (EEG) FEATURES FOR MONITOR'G SUBJ ATTENTIO  
 04/28/1999 - 09/30/2000 FY00: -\$3 Total: \$59,923  
*Prin. Invest.:* J C PRINCIPE  
*Tech. Officer:* LARC/M A MOTTER, LARC/A T POPE  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 1 2198 UNIVERSITY OF FLORIDA 3749**  
 REDUCED ORDER MODELS VIA MULTIREOLUTION ANALYSIS FOR  
 CONTROL OF FLOW  
 05/19/1999 - 02/18/2002 FY00: \$51,910 Total: \$102,810  
*Prin. Invest.:* A J KURDILA  
*Tech. Officer:* LARC/W A SILVA  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2232 UNIVERSITY OF FLORIDA 3750**  
 DAMAGE TOLERANCE OF SANDWICH PLATES WITH DEBONDED FACE  
 SHEETS  
 09/02/1999 - 10/31/2000 FY00: \$17,110 Total: \$48,673  
*Prin. Invest.:* B V SANKAR  
*Tech. Officer:* LARC/D R AMBUR  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2249 UNIVERSITY OF FLORIDA 3751**  
 THE DEVELOPMENT OF DESIGN TOOLS FOR FLOW-CONTROL ACTUATORS  
 12/21/1999 - 01/02/2003 FY00: \$63,154 Total: \$63,154  
*Prin. Invest.:* L N CATTAFESTA, A J KURDILA  
*Tech. Officer:* LARC/S G ANDERS, LARC/R D JOSLIN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2261 UNIVERSITY OF FLORIDA 3752**  
 ADVANCED TECHNOLOGY DEVELOPMENT FOR ACTIVE ACOUSTIC LINERS  
 01/21/2000 - 10/31/2000 FY00: \$102,393 Total: \$102,393  
*Prin. Invest.:* M SHEPLAK  
*Tech. Officer:* LARC/M G JONES, LARC/T L PARROTT  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 2 667 UNIVERSITY OF FLORIDA 3753**  
 "CONTINUED TESTING OF THE GALILEO LIGHTNING AND RA DIO EMISSION  
 DETECTOR"  
 10/09/1990 - 03/31/2000 FY00: -\$32,330 Total: \$253,385  
*Prin. Invest.:* M A UMAN  
*Tech. Officer:* ARC/L E LASHER, ARC/R E YOUNG  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 2 1179 UNIVERSITY OF FLORIDA 3754**  
 DESIGN SPACE EXPLORATION FOR MDO ON A TERAFLAP COM PUTER  
 02/26/1998 - 01/31/2001 FY00: \$35,778 Total: \$104,340  
*Prin. Invest.:* R T HAITKA  
*Tech. Officer:* ARC/G H KLOPTER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2341 UNIVERSITY OF FLORIDA 3755**  
 SHEET FLOWS, AVALANCHES, AND DUNE EVOLUTION ON EAR TH AND  
 MARS  
 03/01/2000 - 11/21/2004 FY00: \$5,760 Total: \$5,760  
*Prin. Invest.:* D M HANES  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2382 UNIVERSITY OF FLORIDA 3756**  
 MICROGRAVITY DRIVEN INSTABILITIES IN GAS-FLUIDIZED BEDS  
 04/05/2000 - 11/30/2003 FY00: \$20,259 Total: \$20,259  
*Prin. Invest.:* A L LADD  
*Tech. Officer:* GRC/B J MOTIL  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2415 UNIVERSITY OF FLORIDA 3757**  
 SEPARATION OF SPECIES BY OSCILLATORY FLOW SEPARATION OF  
 SPECIES BY OSCILLATORY FLOW  
 06/07/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* D NARAYANAN  
*Tech. Officer:* GRC/F P CHIARAMONTE III  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2461 UNIVERSITY OF FLORIDA 3758**  
 OPTIMIZATION OF THERMAL MANAGEMENT SYSTEM WEIGHT OPTIMIZA-  
 TION OF THERMAL MANAGEMENT SYSTEM WEIGHT  
 06/13/2000 - 09/30/2000 FY00: \$10,000 Total: \$10,000  
*Prin. Invest.:* D E LEAR  
*Tech. Officer:* GRC/E L GOLLIER  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 5 3343 UNIVERSITY OF FLORIDA 3759**  
 CALIBRATION AND ASTROPHYSICS WITH ISO  
 08/09/1996 - 08/14/1999 FY00: \$0 Total: \$475,618  
*Prin. Invest.:* C M TELESCO  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3772 UNIVERSITY OF FLORIDA 3760**  
 HUMAN DIMENSIONS OF DEFORESTATION & REGROWTH IN TH TEGRATING  
 DATA FROM SATELLITES, DEMOGRAPHIC CENSU  
 03/11/1997 - 02/28/2001 FY00: \$0 Total: \$536,368  
*Prin. Invest.:* D WOOD  
*Tech. Officer:* GSFC/N MAYNARD  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

<b>NAG 5 3936</b> <b>UNIVERSITY OF FLORIDA</b> <b>3761</b> RELATIVISTIC AND GRAVITATIONAL PHYSICS 04/04/1997 - 12/31/1998      FY00: \$0                      Total: \$109,000 Prin. Invest.: P R IPSER Tech. Officer: GSFC/H HASAN CASE Category: 11 - ASTRONOMY	<b>NAG 5 7664</b> <b>UNIVERSITY OF FLORIDA</b> <b>3769</b> "THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS 09/09/1998 - 09/30/2000      FY00: \$0                      Total: \$36,000 Prin. Invest.: J F DAY Tech. Officer: GSFC/B W MESSON CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 5 4287</b> <b>UNIVERSITY OF FLORIDA</b> <b>3762</b> CARBON SPECIES AS POSSIBLE CARRIERS OF THE UIRS 04/29/1997 - 12/31/2000      FY00: \$45,000                      Total: \$197,000 Prin. Invest.: D T VALA Tech. Officer: GSFC/H THRONSON CASE Category: 11 - ASTRONOMY	<b>NAG 5 7729</b> <b>UNIVERSITY OF FLORIDA</b> <b>3770</b> GLOBAL PLANARIZATION OF DIAMOND --- GOAL IS TO IMPROVE FLAT- NESS OF CVD DIAMOND TO 0.1 MICRO-METER 09/29/1998 - 09/30/2000      FY00: \$0                      Total: \$10,000 Prin. Invest.: R SINGH Tech. Officer: GSFC/J C BRASUNAS CASE Category: 47 - METAL & MATERIALS ENGR
<b>NAG 5 4531</b> <b>UNIVERSITY OF FLORIDA</b> <b>3763</b> DYNAMICS OF SOLAR SYSTEM DUST 05/08/1997 - 02/28/2001      FY00: \$80,750                      Total: \$334,144 Prin. Invest.: D F DERMOTT Tech. Officer: HQ/P ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 5 8472</b> <b>UNIVERSITY OF FLORIDA</b> <b>3771</b> GROUNDBASED MID-IR IMAGING AND SPECTROSCOPY OF VEG A-TYPE DISKS 04/16/1999 - 04/14/2000      FY00: \$0                      Total: \$25,000 Prin. Invest.: C TELESCO Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 4547</b> <b>UNIVERSITY OF FLORIDA</b> <b>3764</b> PLANETARY AEROSOL MONITOR/INTEGRATED DUST ANALYZER 05/06/1997 - 05/31/2000      FY00: \$0                      Total: \$282,390 Prin. Invest.: D GUSTAFSON Tech. Officer: GSFC/B CAMPBELL CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 5 8522</b> <b>UNIVERSITY OF FLORIDA</b> <b>3772</b> CHEMICAL ABUNDANCES AND EVOLUTION IN QUASARS AND ACTIVE GALACTIC NUCLEI LTSA 05/12/1999 - 05/14/2001      FY00: \$105,000                      Total: \$205,000 Prin. Invest.: F W HAMANN Tech. Officer: GSFC/R K OLIVERSEN CASE Category: 11 - ASTRONOMY
<b>NAG 5 6378</b> <b>UNIVERSITY OF FLORIDA</b> <b>3765</b> OPTICAL PROPERTIES OF IRREGULAR DUST PARTICLES: EXPERIMENT AND THEORY 10/08/1997 - 04/30/2001      FY00: \$42,390                      Total: \$211,944 Prin. Invest.: D GUSTAFSON Tech. Officer: GSFC/S HOWARD CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 8944</b> <b>UNIVERSITY OF FLORIDA</b> <b>3773</b> COMPLEX SILICATE GRAINS WITH SUBLIMATING MANTLES: A SYSTEMATIC LABORATORY STUDY OF OPTICAL PROPERTIES 01/13/2000 - 01/14/2001      FY00: \$65,469                      Total: \$65,469 Prin. Invest.: L KOLOKOLOVAPrin. Invest.: NONE Tech. Officer: GSFC/D BOGAN CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 5 6632</b> <b>UNIVERSITY OF FLORIDA</b> <b>3766</b> MAXIMUM LIKELIHOOD ESTIMATION OF GROUND ELEVATION USING LASER- ALTIMETRY. 12/12/1997 - 11/30/1999      FY00: -\$256                      Total: \$48,440 Prin. Invest.: J ANDERSON Tech. Officer: GSFC/R KNOX CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 9280</b> <b>UNIVERSITY OF FLORIDA</b> <b>3774</b> A GLOBAL, MULTI-WAVEBAND MODEL OF THE ZODIACAL CLOUD (ADP 99) 03/21/2000 - 03/31/2001      FY00: \$42,584                      Total: \$42,584 Prin. Invest.: K GROGAN Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY
<b>NAG 5 6751</b> <b>UNIVERSITY OF FLORIDA</b> <b>3767</b> TOWARDS A COMPLETE INVENTORY OF STAR AND PLANET FORMATION ACTIVITY IN NEARBY MOLECULAR CLOUDS 01/12/1998 - 01/14/2000      FY00: \$0                      Total: \$139,800 Prin. Invest.: E LADA Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY	<b>NAG 5 9331</b> <b>UNIVERSITY OF FLORIDA</b> <b>3775</b> LAND-USE & LAND-COVER CHANGE: DECADE-SCALE DYNAMICS OF LAND OWNERSHIP LAND MANAGEMENT & CARBON 03/28/2000 - 04/30/2001      FY00: \$90,999                      Total: \$90,999 Prin. Invest.: M W BINFORD Tech. Officer: GSFC/G GUTMAN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 7559</b> <b>UNIVERSITY OF FLORIDA</b> <b>3768</b> NITROGEN AND PHOSPHORUS DYNAMICS IN FORESTS AND CONVERTED FOREST SITES IN THE AMAZON BASIN: A REVIEW 06/26/1998 - 06/30/2000      FY00: \$2,900                      Total: \$21,908 Prin. Invest.: H L GHOLZ Tech. Officer: GSFC/D W DEERING CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 8 1243</b> <b>UNIVERSITY OF FLORIDA</b> <b>3776</b> FOR RESEARCH ENTITLED AN ELECTROMECHANICAL METHOD TO VISU- ALIZE FLOW AND MEASURE DIFFUSIVITY 05/28/1996 - 05/27/2000      FY00: \$75,000                      Total: \$600,000 Prin. Invest.: T J ANDERSON, R NARAYANAN Tech. Officer: MSFC/P R DOTY, MSFC/R POWER CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 8 1244 UNIVERSITY OF FLORIDA 3777**  
 THE FEATURES OF SELF-ASSEMBLING ORGANIC BILAYERS  
 05/01/1996 - 04/30/2000 FY00: \$40,833 Total: \$280,000  
 Prin. Invest.: D R TALHAM, J H ADAIR  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1251 UNIVERSITY OF FLORIDA 3778**  
 R/S \* CONFINEMENT AND PROPULSION CHARACTERISTICS OF THE  
 GASDYNAMIC MIRROR FUSION ROCKET\*  
 12/23/1996 - 12/31/2000 FY00: \$99,878 Total: \$329,878  
 Prin. Invest.: S ANGHZIE  
 Tech. Officer: MSFC/W J EMRICH, JR.  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 8 1673 UNIVERSITY OF FLORIDA 3779**  
 MORPHOLOGICAL STABILITY OF FACETED INTERFACES  
 05/16/2000 - 11/30/2003 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: R ABBASCHIAM  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1675 UNIVERSITY OF FLORIDA 3780**  
 THE FEATURES OF SELF-ASSEMBLING ORGANIC BILAYERS IMPORTANT  
 TO THE FORMATION OF INORGANIC MATERIALS.  
 05/11/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: D TALHAM  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1679 UNIVERSITY OF FLORIDA 3781**  
 AN ELETROCHEMICAL METHOD TO VISUALIZE FLOW IN LIQUID METALS  
 04/25/2000 - 11/30/2003 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: T J ANDERSON  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1729 UNIVERSITY OF FLORIDA 3782**  
 DEVELOPMENT AND APPLICATION OF OPTIMIZATION TECHNIQUES FOR  
 ROCKET ENGINE COMPONENT DESIGN  
 06/16/2000 - 05/31/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: W SHYY  
 Tech. Officer: MSFC/L W GRIFFIN  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 8 1742 UNIVERSITY OF FLORIDA 3783**  
 A GLOBAL OPTIMIZATION METHODOLOGY FOR ROCKET PRO - PULSION  
 09/06/2000 - 09/15/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: W SHYY  
 Tech. Officer: MSFC/K TUCKER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG10 145 UNIVERSITY OF FLORIDA 3784**  
 GENETICALLY ENGINEERED PLANT BIOMONITOR IN MICRO- GRAVITY  
 09/21/1994 - 08/31/2001 FY00: \$100,000 Total: \$711,208  
 Prin. Invest.: R J FERL  
 Tech. Officer: KSC/W M KNOTT  
 CASE Category: 55 - AGRICULTURE

**NAG10 261 UNIVERSITY OF FLORIDA 3785**  
 THERMAL MODELING FOR MAGNETICALLY COUPLED PUMP IN A CRYO-  
 GENIC ENVIRONMENT  
 04/13/1999 - 09/30/1999 FY00: -\$539 Total: \$39,461  
 Prin. Invest.: W SHYY  
 Tech. Officer: KSC/A RODRIGUEZ  
 CASE Category: 46 - MECHANICAL ENGR

**NAG10 274 UNIVERSITY OF FLORIDA 3786**  
 MINIATURE LOW-POWER INTEGRATED CO/C02/02 SENSOR FO R ISRU  
 CONTROL AND VERIFICATION  
 12/03/1999 - 11/29/2000 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: E D WACHSMAN  
 Tech. Officer: KSC/M BASSIGNANI  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG10 285 UNIVERSITY OF FLORIDA 3787**  
 CRYOGENICS R&T SUPPORT FOR KENNEDY SPACE CENTER CRYOGENICS  
 R&T SUPPORT FOR KENNEDY SPACE CENTER  
 06/05/2000 - 05/18/2001 FY00: \$130,000 Total: \$130,000  
 Prin. Invest.: C SEGAL  
 Tech. Officer: KSC/M LONERGAN  
 CASE Category: 43 - CHEMICAL ENGR

**NAG10 291 UNIVERSITY OF FLORIDA 3788**  
 TIANGENIC PLANT BIOMONITORS TIANGENIC PLANT BIOMONITORS  
 09/29/2000 - 09/30/2004 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: R J FERL  
 Tech. Officer: KSC/D R COX  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAS 3 26314 UNIVERSITY OF FLORIDA 3789**  
 ULTRA HIGH TEMPERATURE REACTOR AND ENERGY CONVERSI ON  
 05/30/1991 - 05/07/1999 FY00: \$0 Total: \$2,748,999  
 Prin. Invest.: N J DIAZ, F ANGHAI, E T DUGAN  
 Tech. Officer: GRC/H S BLOOMFIELD  
 CASE Category: 13 - PHYSICS

**NAS 8 97110 UNIVERSITY OF FLORIDA 3790**  
 OPERATION AND MANAGEMENT FOR THE NASA TECH TRANS- FER  
 CENTER  
 02/02/1997 - 12/30/2000 FY00: \$875,009 Total: \$5,150,123  
 Prin. Invest.: J R THORNTON  
 Tech. Officer: MSFC/J POE  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAS10 96004 UNIVERSITY OF FLORIDA 3791**  
 ON-SITE MEDICAL SUPPORT DURING STS LAUNCH & LAND- ING OPERA-  
 TIONS  
 09/13/1996 - 09/30/2000 FY00: \$115,021 Total: \$391,526  
 Prin. Invest.: A H NEIMS  
 Tech. Officer: KSC/D A TIPTON  
 CASE Category: 56 - MEDICL

**NCC 1 268 UNIVERSITY OF FLORIDA 3792**  
 ADJOINT TECHNIQUES FOR TOPOLOGY OPTIMIZATION OF STRUCTURES  
 UNDER DAMAGE CONDITIONS  
 11/24/1997 - 11/23/1999 FY00: -\$1,135 Total: \$131,004  
 Prin. Invest.: R T HAFTKA, M A AKGUN  
 Tech. Officer: LARC/K C WU, LARC/S J SCOTTI  
 CASE Category: 41 - AERONAUTICAL ENGR

## NASA'S UNIVERSITY PROGRAM

FLORIDA

**NCC 1 397 UNIVERSITY OF FLORIDA 3793**  
 FLEXIBLE WING BASED MICRO AERIAL VEHICLES  
 05/24/2000 - 09/30/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: P G IFJU, D A JENKINS  
 Tech. Officer: LARC/M R WASZAK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 1197 UNIVERSITY OF FLORIDA 3794**  
 DO INTEGRINS MEDIATE THE SKELETAL RESPONSE TO ALTE RED  
 LOADING? (SUBPROJECT C)  
 08/28/2000 - 09/30/2001 FY00: \$24,259 Total: \$24,259  
 Prin. Invest.: T J WRONSKI  
 Tech. Officer: ARC/R K GLOBUS, ARC/E M HOLTON  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5246 UNIVERSITY OF FLORIDA 3795**  
 OPTIMIZATION OF INFRARED DETECTOR ARRAYS FOR AIRBORNE  
 ASTRONOMY  
 12/03/1997 - 12/31/1999 FY00: \$0 Total: \$142,822  
 Prin. Invest.: C M TELESCO, R K PIKA  
 Tech. Officer: ARC/E F ERICKSON, ARC/M R HAAS  
 CASE Category: 11 - ASTRONOMY

**NCC 3 476 UNIVERSITY OF FLORIDA 3796**  
 IN-SITU MONITORING OF CRYSTAL GROWTH USING MEPHIST O  
 05/22/1996 - 08/07/2000 FY00: \$0 Total: \$501,495  
 Prin. Invest.: R ABBASCHIAN  
 Tech. Officer: GRC/C DEGON  
 CASE Category: 13 - PHYSICS

**NCC 8 149 UNIVERSITY OF FLORIDA 3797**  
 RESEARCH IN COMMUNICATING SCIENTIFIC KNOWLEDGE  
 12/22/1997 - 12/21/2000 FY00: \$45,000 Total: \$959,917  
 Prin. Invest.: D TREISE  
 Tech. Officer: MSFC/R KOCZOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 8 157 UNIVERSITY OF FLORIDA 3798**  
 SOUTHEAST REGIONAL EARTH SCIENCE APPLICATIONS CENTER  
 10/20/1998 - 10/20/2003 FY00: \$20,000 Total: \$120,000  
 Prin. Invest.: J W JONES, J W HANSEN  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 9 84 UNIVERSITY OF FLORIDA 3799**  
 AUTOMATIC TEST ANALYSIS FR ADA PROGRAMS  
 03/18/1999 - 03/31/2001 FY00: \$30,000 Total: \$120,000  
 Prin. Invest.: Y H LEE  
 Tech. Officer: JSC/A T LEE  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 9 110 UNIVERSITY OF FLORIDA 3800**  
 ENVIRONMENTAL SYSTEMS COMMERCIAL SPACE TECH CNTR  
 09/22/2000 - 11/30/2000 FY00: \$251,741 Total: \$251,741  
 Prin. Invest.: J J WARWICK  
 Tech. Officer: JSC/K R DAUES  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NGT 1 52233 UNIVERSITY OF FLORIDA 3801**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 04/24/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: M SHEPHERD  
 Tech. Officer: LARC/K K TEDJQJIONO  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 94 UNIVERSITY OF FLORIDA 3802**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) FELLOW SHIP  
 STUDENT - KEVIN WALCHIK  
 06/22/1999 - 11/30/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: D MASON, NONE  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30022 UNIVERSITY OF FLORIDA 3803**  
 FIRE, INSECT OUTBREAKS, AND CLIMATE CHANGE IN BORE OF CROSS-  
 SCALE DYNAMICS  
 10/14/1996 - 08/31/1999 FY00: -\$495 Total: \$57,806  
 Prin. Invest.: C HOLLING  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40025 UNIVERSITY OF FLORIDA 3804**  
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR  
 12/19/1996 - 09/30/2000 FY00: \$0 Total: \$1,404,996  
 Prin. Invest.: W SHYY  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50018 UNIVERSITY OF FLORIDA 3805**  
 MODIFYING EXISTING INSTRUMENTATION TO ADVANCE PIXO UCTION  
 TECHNIQUES  
 07/14/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: C M TELESCO  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50021 UNIVERSITY OF FLORIDA 3806**  
 THE CHEM & PHY PROPERTIES OF COMETS HALE-BOPP (199 6 B2)  
 07/17/1997 - 12/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: H CAMPINS  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50031 UNIVERSITY OF FLORIDA 3807**  
 DETECTING PLANETS IN CIRCUMSTELLAR DISKS  
 07/17/1997 - 12/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: S DERMOTT  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50074 UNIVERSITY OF FLORIDA 3808**  
 RAPID THERMAL PROCESSING OF INDIUM ARSENIDE USING RANSPO  
 RT REACTOR STUDENT - DANIEL  
 09/05/1997 - 08/31/2000 FY00: \$0 Total: \$64,960  
 Prin. Invest.: T ANDERSON  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## FLORIDA

## NASA'S UNIVERSITY PROGRAM

**NGT 5 50134 UNIVERSITY OF FLORIDA 3809**  
 A COMPLETE STUDY OF FAR-INFRARED RADIATION IN NEAR OMBINING  
 ISO DATA WITH BRACKETT GAMMA SPECTROSCOP  
 09/10/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: R M ELSTON  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50177 UNIVERSITY OF FLORIDA 3810**  
 THE ORIGIN OF THE INFRARED EXCESS IN PRE-MAIN-SEQUENCE  
 STARS(STUDENT - E. POLOMSKI)  
 05/26/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: C TELESKO  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50233 UNIVERSITY OF FLORIDA 3811**  
 LOOKING FOR VARIATIONS IN THE INITIAL MASS FUNCTION: FIRST  
 COMPREHENSIVE NEAR-INFRARED SPECTROSCOPY  
 05/27/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: E A LADA  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 8 52890 UNIVERSITY OF FLORIDA 3812**  
 CRITICAL INITIAL FLAW (CIF) SIZE EVALUATION IN SINGLE CRYSTAL NICK-  
 EL-BASE (PWA 1493)  
 06/01/2000 - 06/30/2003 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: N ARAKERE  
 Tech. Officer: MSFC/S NASH-STEVENSON  
 CASE Category: 46 - MECHANICAL ENGR

**NGT10 52626 UNIVERSITY OF FLORIDA 3813**  
 HIGH PERFORMANCE MASS SPECTROMETRY WITH A MINIATURE ION  
 TRAP FOR BIOLOGICAL AND ENVIRONMENTAL MONITORING  
 07/20/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R A YOST  
 Tech. Officer: KSC/F ADAMS  
 CASE Category: 12 - CHEMISTRY

**NGT13 52710 UNIVERSITY OF FLORIDA 3814**  
 NASA GRADUATE PROGRAM-USING REMOTE SENSING TECHNIQUES TO  
 ASSESS STRESS CONDITIONS  
 07/21/1997 - 01/31/2001 FY00: \$0 Total: \$65,846  
 Prin. Invest.: S SHIH, NONE  
 Tech. Officer: JSC/A JOYCE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2002 UNIVERSITY OF MIAMI 3815**  
 A COMPACT AIRBORNE SYSTEM FOR SO<sub>2</sub> & DMF MEASUREMENTS FOR USE ON FUTURE  
 MISSIONS  
 02/09/1998 - 07/14/2000 FY00: -\$86,500 Total: \$238,700  
 Prin. Invest.: E S SALTZMAN  
 Tech. Officer: LARC/J L RAPER, LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 1945 UNIVERSITY OF MIAMI 3816**  
 INTEGRATION OF SLR AND VLBI DATA TO OBTAIN VERY ACCURATE  
 HORIZONTAL AND VERTICAL MOTIONS  
 03/12/1992 - 09/14/1999 FY00: \$0 Total: \$241,000  
 Prin. Invest.: C HARRISON  
 Tech. Officer: GSFC/B G BILLS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 2969 UNIVERSITY OF MIAMI 3817**  
 SOURCES OF THE EARTH'S MAGNETIC FIELD STUDIED USING ORSTED  
 DATA  
 06/15/1995 - 06/25/1999 FY00: \$0 Total: \$150,000  
 Prin. Invest.: C HARRISON  
 Tech. Officer: GSFC/P T TAYLOR  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4025 UNIVERSITY OF MIAMI 3818**  
 GEODETIC MONITORING OF ACTIVE VOLCANOES WITH SAR I RADARSAT  
 04/25/1997 - 02/29/2000 FY00: \$0 Total: \$185,100  
 Prin. Invest.: T H DIXON  
 Tech. Officer: GSFC/S H GOGINENI  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6033 UNIVERSITY OF MIAMI 3819**  
 AN INTEGRATED GPS SYSTEM FOR MONITORING ACTIVE VOLCANOES  
 10/02/1997 - 09/30/2000 FY00: \$100,001 Total: \$300,000  
 Prin. Invest.: T H DIXON  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6576 UNIVERSITY OF MIAMI 3820**  
 SEAWIFS DATA COLLECTION, CALIBRATION AND PROCESSING FOR THE  
 INDIAN OCEAN  
 12/15/1997 - 10/31/2000 FY00: \$0 Total: \$102,821  
 Prin. Invest.: R EVANS  
 Tech. Officer: GSFC/J YODER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6577 UNIVERSITY OF MIAMI 3821**  
 HIGH ACCURACY INFRARED INTERFEROMETRIC VALIDATION OF  
 SATELLITE SURFACE TEMPERATURE RETRIEVALS  
 12/12/1997 - 10/31/2000 FY00: \$161,023 Total: \$599,877  
 Prin. Invest.: P J MINNETT  
 Tech. Officer: GSFC/J C DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6659 UNIVERSITY OF MIAMI 3822**  
 A STUDY OF THE IMPACT OF OCEANIC BIOLOGICAL PROCESSES ON THE  
 AIR-SEA EXCHANGE OF METHYL BROMIDE:  
 11/20/1997 - 09/14/2000 FY00: \$75,003 Total: \$320,065  
 Prin. Invest.: E SALTZMAN  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7110 UNIVERSITY OF MIAMI 3823**  
 TOMS VALIDATION BASED ON PROFILES OF AEROSOL PROPERTIES IN  
 THE LOWER TROPOSPHERE AS OBTAINED WITH  
 03/18/1998 - 03/31/2001 FY00: \$148,768 Total: \$452,904  
 Prin. Invest.: D M PROSPERO  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/J HERMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7668 UNIVERSITY OF MIAMI 3824**  
 RELATIVE AND ABSOLUTE SEA LEVEL CHANGE IN GULF OF NEW MEXICO,  
 A STUDY OF RAPID LAND SUBSIDENCE' S  
 09/28/1998 - 09/30/1999 FY00: \$0 Total: \$25,000  
 Prin. Invest.: C G HARRISON  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7674 UNIVERSITY OF MIAMI 3825**  
 INTEGRATION OF LONG TERM OCEANIC AEROSOL RECORDS F ROM  
 UNIVERSITY OFMIAMI NETWORK STATIONS WITH  
 09/09/1998 - 08/31/2000 FY00: \$40,000 Total: \$80,000  
 Prin. Invest.: J M PROSPERO  
 Tech. Officer: GSFC/M I MISHCHENKO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8161 UNIVERSITY OF MIAMI 3826**  
 COORDINATION OF THE 4TH INTERNATIONAL SYMPOSIUM ON GAS  
 TRANSFERAT WATER SURFACES, JUNE 5-8  
 02/05/1999 - 01/31/2001 FY00: \$0 Total: \$18,000  
 Prin. Invest.: M DONELAN  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8222 UNIVERSITY OF MIAMI 3827**  
 ACTIVITIES AS PROJECT SCIENTIST OF GLOBAL MODELING INITIATIVE  
 02/10/1999 - 12/31/2000 FY00: \$120,634 Total: \$243,431  
 Prin. Invest.: J RODRIGUEZ  
 Tech. Officer: GSFC/R W STEWART  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8229 UNIVERSITY OF MIAMI 3828**  
 STUDIES OF WESTERN PACIFIC INTERANNUAL ANOMALY PAT TERNS  
 TOWARD IMPROVED ENSO PREDICTION.  
 02/24/1999 - 03/31/2001 FY00: \$47,589 Total: \$126,548  
 Prin. Invest.: C WANG  
 Tech. Officer: GSFC/M RIENECKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8864 UNIVERSITY OF MIAMI 3829**  
 SEAWIFS DATA COLLECTION, CALIBRATION, & PROCESSING FOR THE  
 INDIAN OCEAN  
 12/02/1999 - 01/31/2001 FY00: \$52,485 Total: \$52,485  
 Prin. Invest.: R H EVANS  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9066 UNIVERSITY OF MIAMI 3830**  
 PRESENT DAY TECTONICS OF THE CENTRAL ANDES  
 02/18/2000 - 02/28/2001 FY00: \$49,500 Total: \$49,500  
 Prin. Invest.: T H DIXON  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9068 UNIVERSITY OF MIAMI 3831**  
 VOLCANO PLUME MONITORING USING UNMANNED AERIAL VEHICLES  
 02/17/2000 - 02/28/2001 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: T H DIXON  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9627 UNIVERSITY OF MIAMI 3832**  
 A SATELLITE DATA RECEPTION & ANALYSIS FACILITY FOR ENVIRON-  
 MENTAL MONITORING IN THE SOUTHEASTERN  
 08/10/2000 - 07/14/2001 FY00: \$915,000 Total: \$915,000  
 Prin. Invest.: T DIXON  
 Tech. Officer: GSFC/D R KAHLE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9739 UNIVERSITY OF MIAMI 3833**  
 DERIVATION, VALIDATION, & EXPLOITATION OF SEA-SUR FACE TEMPERA-  
 TURES MEASURED BY SENSORS ON TRMM  
 06/28/2000 - 05/31/2001 FY00: \$59,500 Total: \$59,500  
 Prin. Invest.: P J MINNETT  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 31361 UNIVERSITY OF MIAMI 3834**  
 MODIS - INVESTIGATION  
 01/15/1992 - 12/14/2001 FY00: \$1,209,000 Total: \$7,153,000  
 Prin. Invest.: O B BROWN  
 Tech. Officer: GSFC/H OSEROFF  
 CASE Category: 33 - OCEANOGRAPHY

**NAS 5 31362 UNIVERSITY OF MIAMI 3835**  
 EOS/MODIS INVESTIGATION ENTITLED: "PROCESSING/ CALIBRATION FOR  
 OCEAN OBSERVATION WITH EOS/MODIS"  
 12/13/1991 - 12/14/2001 FY00: \$1,544,000 Total: \$9,745,000  
 Prin. Invest.: R EVANS  
 Tech. Officer: GSFC/H OSEROFF  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 31363 UNIVERSITY OF MIAMI 3836**  
 MODERATE RESOLUTION IMAGING SPECTROMETER INVESTIGATION -  
 OCEAN  
 01/15/1992 - 12/14/2001 FY00: \$796,000 Total: \$5,362,000  
 Prin. Invest.: H GORDON  
 Tech. Officer: GSFC/H OSEROFF  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 31734 UNIVERSITY OF MIAMI 3837**  
 DEVELOPMENT FOR SEAWIFS  
 11/22/1991 - 11/22/2000 FY00: -\$101,877 Total: \$267,123  
 Prin. Invest.: H GORDAN  
 Tech. Officer: GSFC/C MCCLAIN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 30222 UNIVERSITY OF MIAMI 3838**  
 MID-OCEAN MESOSCALE VARIABILITY AS DEDUCED FROM TOPEX ALTI-  
 METRY & HIGH-RESOLUTION NUMERICAL MODEL  
 08/26/1999 - 08/31/2000 FY00: -\$12,000 Total: \$10,000  
 Prin. Invest.: O B BROWN  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1000 UNIVERSITY OF SOUTH FLORIDA 3839**  
 EFFECTS OF WEIGHTLESSNESS ON THE AVIAN VISUO-VESTI BULAR  
 SYSTEM: IMMUNOHISTOCHEMICAL ANALYSIS  
 08/27/1995 - 12/31/1998 FY00: -\$1,771 Total: \$120,260  
 Prin. Invest.: T SHIMIZU  
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 3446 UNIVERSITY OF SOUTH FLORIDA 3840**  
 BOTTOM-ASSESSMENT AND WATER-CONSTITUTENT ALGORITHM S FOR  
 THE ETM IN THE COASTAL ZONE  
 10/10/1996 - 12/31/2000 FY00: \$231,800 Total: \$712,764  
 Prin. Invest.: KARGER  
 Tech. Officer: GSFC/D L WILLIAMS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 5202 UNIVERSITY OF SOUTH FLORIDA 3841**  
 COLLABORATION ON A STUDY OF SIGMA NAUGHT BLOOM EFFECTS ON  
 RADAR ALTIMETERS  
 06/18/1998 - 06/21/2002 FY00: \$35,000 Total: \$75,000  
 Prin. Invest.: G T MITCHUM  
 Tech. Officer: GSFC/G S HAYNE  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 6301 UNIVERSITY OF SOUTH FLORIDA 3842**  
 HYPERSPECTRAL CHARACTERIZATION FOR APPLICATION TO CARBON  
 CYCLING IN COASTAL REGIONS  
 09/02/1997 - 08/14/2001 FY00: \$60,000 Total: \$335,571  
 Prin. Invest.: P COBLE  
 Tech. Officer: GSFC/J YODER  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 6448 UNIVERSITY OF SOUTH FLORIDA 3843**  
 SYNOPTIC ANALYSIS OF FACTORS INFLUENCING CARBON FLUXES AT THE  
 CARIACO CONTINENTAL MARGIN TIME SER  
 10/24/1997 - 09/30/2001 FY00: \$148,972 Total: \$446,836  
 Prin. Invest.: F MULLER-KARGER  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6449 UNIVERSITY OF SOUTH FLORIDA 3844**  
 A NUMERICAL ANALYSIS OF NEW NITROGEN SOURCES OF NO 3 AND N2  
 EFFECTING CARBON CYCLING IN THE SOUTH  
 10/24/1997 - 10/14/2001 FY00: \$196,274 Total: \$582,965  
 Prin. Invest.: J WALSH  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8175 UNIVERSITY OF SOUTH FLORIDA 3845**  
 SOUTHEASTERN US X-BAND EOS DB RECEPTION FACILITY ( SEUS-X):  
 INFRASTRUC- TURE FOR ENVIRONMENTAL ASSE  
 02/04/1999 - 02/14/2001 FY00: \$0 Total: \$500,000  
 Prin. Invest.: F E MULLER-KARGER  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1381 UNIVERSITY OF SOUTH FLORIDA 3846**  
 RESEARCH "DEVELOPMENT OF AN INSULIN SECRETING IMMUNOPRIVI-  
 LEGED CELL-CELL AGGREGATE UTILIZING  
 06/01/1997 - 12/31/2000 FY00: \$112,000 Total: \$376,000  
 Prin. Invest.: D CAMERON  
 Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 9 648 UNIVERSITY OF SOUTH FLORIDA 3847**  
 EVALUATION OF OVARIAN TUMOR CELL GROWTH AND GENE EXPRESSION  
 10/28/1992 - 06/11/2001 FY00: \$0 Total: \$600,000  
 Prin. Invest.: J L BECKER  
 Tech. Officer: JSC/S R GONDA  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 959 UNIVERSITY OF SOUTH FLORIDA 3848**  
 DEVELOP INTERACTIVE ASTRONAUT TRAINING MATERIALS  
 09/23/1997 - 09/22/1999 FY00: -\$166 Total: \$11,334  
 Prin. Invest.: L L ROBBINS  
 Tech. Officer: JSC/K P LULLA  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 9 1104 UNIVERSITY OF SOUTH FLORIDA 3849**  
 INVESTIGATIONS OF BIOMARKERS IN MINERAL ASSEMBLAGE  
 05/10/1999 - 05/09/2004 FY00: \$0 Total: \$15,000  
 Prin. Invest.: L L ROBBINS  
 Tech. Officer: JSC/E K GIBSON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG10 204 UNIVERSITY OF SOUTH FLORIDA 3850**  
 EDUCATION GRANT ENTITLED "YES WE CARE"  
 01/07/1997 - 06/30/2001 FY00: \$70,854 Total: \$324,546  
 Prin. Invest.: R E HENNING  
 Tech. Officer: KSC/J A DIGGS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAS 3 26412 UNIVERSITY OF SOUTH FLORIDA 3851**  
 ACTS PROPAGATION EXPERIMENTS  
 05/03/1993 - 09/30/2000 FY00: \$0 Total: \$376,895  
 Prin. Invest.: R E HENNING  
 Tech. Officer: GRC/G J GUNDERMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 5 31716 UNIVERSITY OF SOUTH FLORIDA 3852**  
 EARTH OBSERVING SYSTEM MODIS/HIRIS TEAM MEMBER INVESTIGATION  
 01/15/1992 - 12/14/2001 FY00: \$665,000 Total: \$4,813,168  
 Prin. Invest.: K R CORDER  
 Tech. Officer: GSFC/H OSEROFF  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 97128 UNIVERSITY OF SOUTH FLORIDA 3853**  
 CAL/VAL OF CARBON FLUXES FOR SIMBIOS  
 08/18/1997 - 08/17/2000 FY00: \$0 Total: \$616,988  
 Prin. Invest.: F E MULLER-KARGER  
 Tech. Officer: GSFC/C R MCCLAIN  
 CASE Category: 33 - OCEANOGRAPHY

**NAS 5 97137 UNIVERSITY OF SOUTH FLORIDA 3854**  
 STRAY LIGHT & ATMOSPHERIC ADJACENCY EFFECTS FOR LARGE FOV  
 OCEAN VIEWING SPACE SENSORS  
 09/23/1997 - 03/22/2001 FY00: \$0 Total: \$520,841  
 Prin. Invest.: K CARTER  
 Tech. Officer: GSFC/J L MUELLER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 30270 UNIVERSITY OF SOUTH FLORIDA 3855**  
 GLOBAL CHANGE FELLOWSHIP PROGRAM  
 10/20/1994 - 09/30/1998 FY00: -\$300 Total: \$21,700  
 Prin. Invest.: M LUTHER, T BUSALACCHI  
 Tech. Officer: HQ/A C JANETOS, HQ/G ASRAR  
 CASE Category: 33 - OCEANOGRAPHY



**NGT 5 30143 UNIVERSITY OF SOUTH FLORIDA 3856**  
 EL NINO/SOUTHERN OSCILLATION IN THE ANTARCTIC CIRCUMPOLAR  
 CURRENT  
 08/27/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: G T MITHCHUM, HAAN  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30159 UNIVERSITY OF SOUTH FLORIDA 3857**  
 FUNCTIONAL GROUPING OF PLANTS IN FLORIDA SCRUB HAB ITAT  
 08/28/1998 - 08/31/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: J R BROOKS  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30346 UNIVERSITY OF SOUTH FLORIDA 3858**  
 CHARACTERIZATION OF CDOM RIVERINE CONTRIBUTION AND DISTRIBU-  
 TION THOROUGH REMOTE SENSINGSATELLITE IMA  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: P COBLE  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30354 UNIVERSITY OF SOUTH FLORIDA 3859**  
 IMPACT OF LARGE & SMALL RIVERSON ADJACENT OCEANIC ENVIRON-  
 MENTS/STUDENT: ANA ODRIOLLA  
 08/24/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: F MULLER-KARGER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2236 UNIVERSITY OF WEST FLORIDA 3860**  
 INTELLIGENT TACTILE SYSTEMS FOR IMPROVED SAFETY OF FLIGHT  
 (NRA-98-LARC-8)  
 09/20/1999 - 09/19/2001 FY00: \$165,867 Total: \$232,450  
 Prin. Invest.: A K RAV  
 Tech. Officer: LARC/W K GERDEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1225 UNIVERSITY OF WEST FLORIDA 3861**  
 ATTENTION DIRECTING PILOTING DISPLAY: OZ A COMPUTE R BASED  
 HUMAN-CENTERED SYSTEM  
 05/29/1998 - 01/31/2001 FY00: \$99,659 Total: \$373,159  
 Prin. Invest.: D L STILL  
 Tech. Officer: ARC/D C FOYLE  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 2 1226 UNIVERSITY OF WEST FLORIDA 3862**  
 INTELLIGENT HUMAN COMPUTER TACTILE INTERFACES FOR ROTOR-  
 CRAFT & CIVIL AVIATION  
 06/11/1998 - 12/31/2000 FY00: \$141,852 Total: \$485,906  
 Prin. Invest.: N SURI, F GUEDRY, A RAZ  
 Tech. Officer: ARC/J DEMAIO, ARC/J V LEBACQZ  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1332 UNIVERSITY OF WEST FLORIDA 3863**  
 ADAPTING AN ATTENTION DIRECTIONPILOTING DISPLAY FO R THE SPACE  
 SHUTTLE  
 06/21/1999 - 03/31/2001 FY00: \$75,000 Total: \$147,614  
 Prin. Invest.: D STILL  
 Tech. Officer: HQ/A R GROSS  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 8782 UNIVERSITY OF WEST FLORIDA 3864**  
 HAPTIC INTERFACES TO AUGMENT HUMAN/MACHINE INTERAC TION IN  
 SPACE ACTIVITES  
 08/30/1999 - 11/30/2000 FY00: \$193,104 Total: \$247,767  
 Prin. Invest.: A K RAJ  
 Tech. Officer: GSFC/R CROUCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1016 UNIVERSITY OF WEST FLORIDA 3865**  
 THE VIRTUAL SOLAR SYSTEM  
 02/05/1998 - 06/30/1999 FY00: \$0 Total: \$110,000  
 Prin. Invest.: N SURI, A CANAS  
 Tech. Officer: ARC/M H SHIRLEY  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 1036 UNIVERSITY OF WEST FLORIDA 3866**  
 EXPLANATION & COLLABORATION THROUGH CONCEPT MAPS  
 05/07/1998 - 09/30/2000 FY00: \$110,206 Total: \$604,499  
 Prin. Invest.: A J CANAS  
 Tech. Officer: ARC/B H WHITAKER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1191 UNIVERSITY OF WEST FLORIDA 3867**  
 UNSOLOCIATED PROPOSAL TO EXTABLISH THE INFORMATION  
 TECHNOLOGY ASSESSMENT CONSORTIUM (ITAC) & SUPPOR  
 08/07/2000 - 09/30/2001 FY00: \$166,000 Total: \$166,000  
 Prin. Invest.: K M FORD  
 Tech. Officer: ARC/M E DUENAS  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG10 165 VALENCIA COMMUNITY COLLEGE 3868**  
 HIGH TECH TRAINING OF INDIVIDUALS WITH DISABILITY  
 06/06/1995 - 08/31/2000 FY00: \$20,000 Total: \$115,043  
 Prin. Invest.: K WOODBERRY  
 Tech. Officer: KSC/G BUCKINGHAM  
 CASE Category: 22 - COMPUTER SCIENCE

## GEORGIA

**NAG10 233 ALBANY STATE UNIVERSITY 3869**  
 PROJECT HIGH SCHOOL/HIGH TECH  
 09/30/1997 - 03/31/2000 FY00: \$0 Total: \$211,500  
 Prin. Invest.: G L BLACK, III  
 Tech. Officer: KSC/E JOHNSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG10 265 ALBANY STATE UNIVERSITY 3870**  
 ALBANY STATE UNIVERSITY HIGH SCHOOL/HIGH TECH ALBANY STATE  
 UNIVERSITY HIGH SCHOOL/HIGH TECH  
 09/10/1999 - 09/09/2001 FY00: \$25,000 Total: \$125,000  
 Prin. Invest.: D HODGES-TILLER  
 Tech. Officer: KSC/R J MCKINNEY  
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

**NAG 3 1973 CLARK ATLANTA UNIVERSITY 3871**  
 GROWTH AND CHARACTERIZATION OF III-V SEMICONDUCTOR S FOR  
 DEVICE APPLICATIONS  
 09/26/1996 - 06/30/2000 FY00: \$0 Total: \$299,214  
 Prin. Invest.: M D WILLIAMS  
 Tech. Officer: GRC/S A ALTERNOVITZ  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2292 CLARK ATLANTA UNIVERSITY 3872**  
 TEST AND EVALUATION OF NONCHROMATE FINISHING AGENT  
 09/29/1999 - 08/23/2001 FY00: \$99,998 Total: \$199,998  
 Prin. Invest.: D OKHIO  
 Tech. Officer: GRC/R LAWRENCE  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 5 6169 CLARK ATLANTA UNIVERSITY 3873**  
 THE ACCURACY OF EARTH OBSERVING SYSTEM MEASUREMENT DYNAMICS  
 08/01/1997 - 07/31/2000 FY00: \$0 Total: \$200,000  
 Prin. Invest.: D STEPHENSON-HAWK  
 Tech. Officer: GSFC/R ROOD  
 CASE Category: 13 - PHYSICS

**NAG 5 6889 CLARK ATLANTA UNIVERSITY 3874**  
 ELECTRON EXCITATION CROSS SECTIONS OF ATOMS AND IONS RELEVANT TO PLANETARY ATMOSPHERES  
 01/21/1998 - 03/31/2001 FY00: \$62,455 Total: \$192,755  
 Prin. Invest.: S TAYAL  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8792 CLARK ATLANTA UNIVERSITY 3875**  
 DEVELOPMENT OF DISPERSION RELATIONS FOR SOLAR AND STELLAR DIAGNOSTICS  
 09/02/1999 - 08/31/2001 FY00: \$97,950 Total: \$197,950  
 Prin. Invest.: A MSEZANE, NONE  
 Tech. Officer: GSFC/A TEMKIN  
 CASE Category: 13 - PHYSICS

**NAG 8 1345 CLARK ATLANTA UNIVERSITY 3876**  
 RESEARCH ENTITLED: "EXPERIMENTAL AND NUMERICAL STUDIES OF COMBUSTION INSTABILITIES"  
 04/16/1997 - 05/30/2000 FY00: \$0 Total: \$199,272  
 Prin. Invest.: T BAI  
 Tech. Officer: MSFC/A CHOW  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 8 1493 CLARK ATLANTA UNIVERSITY 3877**  
 MOBILE SCIENCE, MATHEMATICS EDUCATION UNIT  
 06/01/1998 - 05/31/2001 FY00: \$98,877 Total: \$295,984  
 Prin. Invest.: A MSEZANE  
 Tech. Officer: MSFC/W LOVE  
 CASE Category: 21 - MATHEMATICS

**NAG 8 1535 CLARK ATLANTA UNIVERSITY 3878**  
 MASTAP FOR SCIENCE TEACHERS OPEN SUPPORT SYSTEMS (S-TOSS)  
 05/07/1998 - 05/01/2001 FY00: \$200,000 Total: \$600,000  
 Prin. Invest.: B E ALICK  
 Tech. Officer: MSFC/A C BEAM  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 3 27785 CLARK ATLANTA UNIVERSITY 3879**  
 NRA-95-1-LERC-MODELING AND TESTING OF HYBRID TITANIUM COMPOSITE LAMINATES AT NORMAL & ELEVATED TEMPERATURE  
 10/20/1995 - 09/30/1998 FY00: \$0 Total: \$179,706  
 Prin. Invest.: A ABRATAN  
 Tech. Officer: GRC/G D ROBERTS  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAS 3 27881 CLARK ATLANTA UNIVERSITY 3880**  
 STUDY OF LONG TERM DURABILITY OF POLYMER MATRIX COMPOSITES FOR HIGH TEMPERATURE APPLICATIONS  
 10/10/1995 - 04/09/1999 FY00: \$0 Total: \$169,999  
 Prin. Invest.: A BADIR, K TALREJA  
 Tech. Officer: GRC/K J BOWLES  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 1 341 CLARK ATLANTA UNIVERSITY 3881**  
 COMPUTATIONAL MATERIALS RESEARCH: RESIDUAL STRESS AND DATA CORRELATION  
 05/14/1999 - 09/30/1999 FY00: \$0 Total: \$30,000  
 Prin. Invest.: D R VEAZIE  
 Tech. Officer: LARC/T S GATES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 3 552 CLARK ATLANTA UNIVERSITY 3882**  
 HIGH PERFORMANCE POLYMERS AND COMPOSITES CENTER  
 04/29/1997 - 02/28/2002 FY00: \$500,001 Total: \$3,349,913  
 Prin. Invest.: A A MINTZ  
 Tech. Officer: GRC/S DUTTA, GRC/M A MEADOR  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 707 CLARK ATLANTA UNIVERSITY 3883**  
 LIQUID FUELS: PYROLYTIC DEGRADATION AND FIRE SPREAD BEHAVIOR AS INFLUENCED BY BUOYANCY  
 05/19/1999 - 03/14/2002 FY00: \$126,466 Total: \$234,270  
 Prin. Invest.: Y D YEBOAH  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 5 347 CLARK ATLANTA UNIVERSITY 3884**  
 INTEGRATION OF RESEARCH AND EDUCATION IN THE AREA OF EARTH SYSTEMS SCIENCE  
 07/01/1998 - 06/30/2001 FY00: \$493,692 Total: \$1,489,882  
 Prin. Invest.: D STEPHENSON-HAWK  
 Tech. Officer: HQ/B WHITE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1579 EMORY UNIVERSITY 3885**  
 DESIGN, SYNTHESIS, AND CHARACTERIZATION OF WELL-DEFINED, BIOMIMETIC POLYPEPTIDE NETWORKS  
 01/05/1999 - 11/30/2002 FY00: \$121,662 Total: \$224,524  
 Prin. Invest.: V CONTICELLO  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 1 1564 GEORGIA INSTITUTE OF TECHNOLOGY 3886**  
 NEW APPROACHES TO HSCT MULTIDISCIPLINARY DESIGN AND OPTIMIZATION  
 12/20/1993 - 12/31/1998 FY00: -\$863 Total: \$604,073  
 Prin. Invest.: D P SCHRAGE, R E FULTON, J I CRAIG  
 Tech. Officer: LARC/R P WESTON, LARC/J SOBIESKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1734**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3887**  
 MEASUREMENTS TECHNOLOGY DEVELOPMENT TO VALIDATE DUCT LINER  
 PROPAGATION MODELS  
 06/27/1995 - 12/31/1999      FY00: \$0      Total: \$489,983  
*Prin. Invest.:* K K AHUJA  
*Tech. Officer:* LARC/M B TRACY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 1766**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3888**  
 MEASUREMENTS OF OH, H<sub>2</sub> SO<sub>4</sub>, MSA, DMSO, AND DMSO<sub>2</sub> ON THE NASA  
 P-3B AIRCRAFT  
 09/29/1995 - 10/31/1998      FY00: -\$36      Total: \$586,965  
*Prin. Invest.:* D L EISELE, D L MAULDIN  
*Tech. Officer:* LARC/J M HOELL, JR., LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 1769**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3889**  
 TROPOSPHERIC DIAGNOSTIC MODELING STUDIES OF PEM- TROPICS  
 FIELD DATA: INVESTIGATION OF THE HOX/NOX/  
 09/29/1995 - 03/31/1999      FY00: -\$1      Total: \$486,237  
*Prin. Invest.:* D D DAVIS, D CHAMEIDES  
*Tech. Officer:* LARC/J M HOELL, JR., LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 1786**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3890**  
 SYSTEM DEFINITION AND MODULE DEVELOPMENT FOR A COMPREHEN-  
 SIVE AIRCRAFT SIZING AND SYNTHESIS TOOL  
 01/19/1996 - 04/30/1999      FY00: -\$700      Total: \$279,257  
*Prin. Invest.:* D N MAVRIS  
*Tech. Officer:* LARC/P A GELHAUSEN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 1793**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3891**  
 ADVANCED DESIGN METHODOLOGY FOR ROBUST AIRCRAFT SIZING AND  
 SYNTHESIS  
 01/22/1996 - 04/30/1999      FY00: -\$364      Total: \$276,151  
*Prin. Invest.:* D N MAVRIS  
*Tech. Officer:* LARC/P A GELHAUSEN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 1810**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3892**  
 NEW NASA GRANT AWARD  
 02/22/1996 - 02/21/1999      FY00: -\$1      Total: \$150,000  
*Prin. Invest.:* J QU  
*Tech. Officer:* LARC/W H PROSSER  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 1 1822**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3893**  
 A MODEL STUDY OF PEM-TROPICS OBSERVATIONS  
 03/19/1996 - 03/31/1999      FY00: -\$22,715      Total: \$397,377  
*Prin. Invest.:* S LIU  
*Tech. Officer:* LARC/J M HOELL, JR., LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 1890**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3894**  
 HIGH TEMPERATURE COMPOSITE/METAL LAMINATES  
 01/17/1997 - 08/31/2000      FY00: \$1      Total: \$181,233  
*Prin. Invest.:* W S JOHNSON  
*Tech. Officer:* LARC/T L ST. CLAIR, LARC/S E LOWTHER  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 1 1904**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3895**  
 DOWNSIZING GEORGIA TECH'S AIRBORNE FLUORESCENCE SPECTROM-  
 ETER (AFS) FOR THE MEASUREMENT OF NITROGEN  
 02/27/1997 - 10/31/1998      FY00: -\$169      Total: \$562,198  
*Prin. Invest.:* J P BRADSHAW, S SANDHOLM  
*Tech. Officer:* LARC/J M HOELL, LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 1951**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3896**  
 RAPID PROTOTYPING OF COMPOSITE STRUCTURES  
 07/14/1997 - 09/30/1998      FY00: \$0      Total: \$0  
*Prin. Invest.:* J S COLTON  
*Tech. Officer:* LARC/E S WEISER, LARC/H L BELVIN  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 1 2008**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3897**  
 EXPLORATORY INVEST OF DURABILITY OF BENEFICIAL EFFECTS OF COLD  
 WORKING OF HOLES IN ALUM ALLOYS  
 02/13/1998 - 02/12/1999      FY00: -\$1      Total: \$72,000  
*Prin. Invest.:* W S JOHNSON  
*Tech. Officer:* LARC/J C NEWMAN, JR., LARC/I S RAJU  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 1 2014**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3898**  
 TECHNIQUES FOR IMPROVING PILOT RECOVERY FROM SYSTEM FAILURES  
 03/02/1998 - 03/01/2001      FY00: \$55,270      Total: \$158,743  
*Prin. Invest.:* A R PRITCHETT  
*Tech. Officer:* LARC/A C TRUJILLO  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2051**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3899**  
 ADD. DEV. & SYSTEMS ANALYSES OF PNEUMATIC TECHNOLOGY FOR  
 HIGH-SPEED CIVIL TRANSP AIRCRAFT  
 04/06/1998 - 07/05/1999      FY00: \$0      Total: \$0  
*Prin. Invest.:* R J ENGLAR  
*Tech. Officer:* LARC/L S BANGERT, LARC/B A CAMPBELL  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2149**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3900**  
 DEVELOPMENT FOR ADVANCED LIFE CYCLE COSTING METHOD FOR  
 TECHNOLOGY BENEFITS/COSTS/RISK ASSESSMENT  
 03/26/1999 - 12/31/2001      FY00: \$104,251      Total: \$215,251  
*Prin. Invest.:* D N MAVRIS  
*Tech. Officer:* LARC/M D MOORE, LARC/P A GELHAUSEN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2175**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3901**  
 RAPIDLY RE-CONFIGURABLE FLIGHT SIMULATOR TOOLS FOR CREW  
 VEHICLE INTEGRATION RESEARCH AND DESIGN  
 04/09/1999 - 03/29/2002      FY00: \$0      Total: \$85,819  
*Prin. Invest.:* A R PRITCHETT  
*Tech. Officer:* LARC/P C SCHUTTE, LARC/A C TRUJILLO  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 1 2202**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3902**  
 SAGE II OZONE (V6.0) ANAL W/EMPHASIS ON LONG TERM TRENDS IN THE  
 LOWER STRATOSPHERE (NRA-98-OES-04)  
 06/11/1999 - 07/07/2002      FY00: \$98,000      Total: \$156,700  
*Prin. Invest.:* D M CUNNOLD  
*Tech. Officer:* LARC/G L MADDREA, LARC/L R POOLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

<p><b>NAG 1 2243</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3903</b>  DEMO/EVAL OF INTELLIGENT FLT PROPULSION &amp; CONTROL SYS UNDER  UNANTICIPATED CRITICAL FAILURE CONDITION  09/27/1999 - 09/30/2001      FY00: \$0      Total: \$0  Prin. Invest.: A J CALISE  Tech. Officer: LARC/P W GOODE  CASE Category: 29 - MATH/COMPUTER SCI, OTHER</p>	<p><b>NAG 2 1291</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3911</b>  SIMULATION OF THE NATIONAL AIRSPACE SYSTEM FOR SAFETY ANAL-  YSIS  02/02/1999 - 03/31/2001      FY00: \$104,998      Total: \$191,339  Prin. Invest.: D GOLDSMAN, A R PRITCHETT  Tech. Officer: ARC/C I STATLER, ARC/M C CONNORS  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 1 2245</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3904</b>  INCONEL HOLLOW SPHERE STRUCTURES FOR LIGHTWEIGHT PANELS --  NRA 99-LARC-1  09/22/1999 - 01/31/2002      FY00: \$0      Total: \$0  Prin. Invest.: J K COCHRAN, J K LEE, T H SANDERS  Tech. Officer: LARC/W D BREWER, LARC/S J HALES  CASE Category: 47 - METAL &amp; MATERIALS ENGR</p>	<p><b>NAG 2 1314</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3912</b>  ENABLING CSPA OPERATIONS THROUGH PILOT DEVELOPMENT IN  LONGITUDINAL APPROACH SPACING  04/01/1999 - 03/14/2001      FY00: \$58,817      Total: \$120,201  Prin. Invest.: A B PRITCHETT  Tech. Officer: ARC/V BATTISTE, ARC/W W JOHNSON  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 1 2276</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3905</b>  SIMPLE ELASTICITY OF MODELING AND FAILURE PREDICTION OF  COMPOSITE FLEXBEAMS  03/06/2000 - 10/31/2000      FY00: \$0      Total: \$0  Prin. Invest.: E A ARMANIOS  Tech. Officer: LARC/T K OBRIEN/D R AMBUR  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 2 1390</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3913</b>  DYNAMIC STALL CHARACTERISTICS OF DROPPED LEADING EDGE  AIRFOILS  01/07/2000 - 09/30/2000      FY00: \$20,923      Total: \$20,923  Prin. Invest.: L N SANKAR, NONE  Tech. Officer: ARC/C TUNG  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 1 2280</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3906</b>  IMPROVING CONCEPTUAL DESIGN FOR LAUNCH VEHICLES  03/20/2000 - 12/19/2000      FY00: \$0      Total: \$0  Prin. Invest.: J R OLDS  Tech. Officer: LARC/T A TALAY  CASE Category: 42 - ASTRONAUTICAL ENGR</p>	<p><b>NAG 2 1418</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3914</b>  IN-FLIGHT DEMONSTRATION OF TACTILE CUEING ON RASCA L  07/13/2000 - 08/31/2001      FY00: \$49,736      Total: \$49,736  Prin. Invest.: J P PRASAD, A J CALISE  Tech. Officer: ARC/M S WHALLEY, ARC/M B TISCHER  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 2 1103</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3907</b>  MODELING &amp; DATA ANALYSIS OF SONEX OBSERVATIONS  01/13/1997 - 01/31/2000      FY00: -\$2,917      Total: \$317,242  Prin. Invest.: S C LIU  Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 2 1431</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3915</b>  MOLECULAR BASIS OF MECHANO-SIGNAL TRANSDUCTION IN VASCULAR  ENDOTHELIAL CELL  08/15/2000 - 12/31/2000      FY00: \$107,305      Total: \$107,305  Prin. Invest.: H JO  Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p><b>NAG 2 1174</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3908</b>  INTELLIGENT FLIGHT PROPULSION &amp; CONTROL SYSTEM FOR ENHANCE  FLIGHT SAFETY  02/06/1998 - 02/29/2000      FY00: -\$37      Total: \$99,252  Prin. Invest.: A J CALISE  Tech. Officer: ARC/J TOTH  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 3 1894</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3916</b>  NON-COALESCENCE EFFECTS IN MICROGRAVITY  06/17/1996 - 06/16/2001      FY00: \$50,000      Total: \$487,015  Prin. Invest.: G P NEITZEL  Tech. Officer: GRC/R S KARDA  CASE Category: 46 - MECHANICAL ENGR</p>
<p><b>NAG 2 1178</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3909</b>  USE OF COCKPIT DISPLAY OF TRAFFIC INFORMATION FOR INCREASED  PILOT INVOLVEMENT IN AIR TRAFFIC MGMT  02/19/1998 - 12/31/1999      FY00: -\$158      Total: \$79,843  Prin. Invest.: A R PRITCHETT  Tech. Officer: ARC/W W JOHNSON  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 3 1949</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3917</b>  THE DEVELOPMENT OF NOVEL, HIGH-FLUX, HEAT TRANSFER CELLS FOR  THERMAL CONTROL IN MICROGRAVITY  09/17/1996 - 09/12/2001      FY00: \$120,000      Total: \$480,000  Prin. Invest.: M K SMITH, A GLEZER  Tech. Officer: GRC/B SINGH  CASE Category: 46 - MECHANICAL ENGR</p>
<p><b>NAG 2 1262</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3910</b>  QUALITY-OF-SERVICE PROBLEMS OF REAL-TIME VBR TRAFFIC IN  HYBRID NETWORKS  09/03/1998 - 08/31/2001      FY00: \$0      Total: \$302,434  Prin. Invest.: I F AKYILDIZ  Tech. Officer: ARC/C M FALSETTI, ARC/B H WITHAKER  CASE Category: 22 - COMPUTER SCIENCE</p>	<p><b>NAG 3 2006</b>      <b>GEORGIA INSTITUTE OF TECHNOLOGY</b>      <b>3918</b>  TERRESTRAL EXPERIMENTS ON G-GITTER EFFECTS ON TRANSPORT &amp;  PATTERN FORMATION  01/24/1997 - 07/16/2001      FY00: \$70,000      Total: \$277,327  Prin. Invest.: M F SCHATZ, H L SWINNEY  Tech. Officer: GRC/W DUVAL, GRC/T K GLASGOW  CASE Category: 47 - METAL &amp; MATERIALS ENGR</p>

**NAG 3 2192**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3919**  
 PREMIXED TURBULENT FLAME PROPAGATION IN MICROGRAVITY  
 08/19/1998 - 12/31/1998      FY00: -\$30      Total: \$48,313  
*Prin. Invest.:* S MENON  
*Tech. Officer:* GRC/K R SACKSTEDER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2205**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3920**  
 NONLINEAR DYNAMIC ANALYSIS OF DISORDERED BLADED-DI SK  
 ASSEMBLIES  
 10/07/1998 - 09/30/1999      FY00: \$0      Total: \$14,999  
*Prin. Invest.:* O G MCGEE  
*Tech. Officer:* GRC/G L STEFKO  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2329**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3921**  
 SINGLE-/MULTI-LAYER MICROSTRIP AND COPLANAR WAVEGUIDE LINES  
 CROSSTALK  
 02/09/2000 - 01/31/2003      FY00: \$49,081      Total: \$49,081  
*Prin. Invest.:* D M TENTZERIS  
*Tech. Officer:* GRC/G E PONCHAK  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 2373**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3922**  
 NOVEL OPTICAL DIAGNOSTICS TECHNIQUES FOR STUDYING PARTICLE  
 CONTACT AND DEPOSITION UPON A LARGE CYLINDER  
 03/28/2000 - 11/30/2003      FY00: \$41,248      Total: \$41,248  
*Prin. Invest.:* D YODA  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2431**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3923**  
 NON-COALESCENCE IN MICROGRAVITY: SCIENCE AND TECHNOLOGY  
 05/23/2000 - 11/30/2003      FY00: \$50,000      Total: \$50,000  
*Prin. Invest.:* D P NEITZEL  
*Tech. Officer:* GRC/R SKARDA  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 2227**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3924**  
 INTELLIGENT COMMAND AND CONTROL SYSTEMS FOR SATELLITE  
 GROUND OPERATIONS  
 03/12/1993 - 03/31/1999      FY00: -\$102      Total: \$267,143  
*Prin. Invest.:* C M MITCHELL  
*Tech. Officer:* GSFC/A W STOFFEL  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 3634**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3925**  
 LABORATORY INVESTIGATIONS OF STRATOSPHERIC AND UPPER ATMOSPHERIC  
 CHEMISTRY  
 02/25/1997 - 12/31/1999      FY00: \$0      Total: \$466,575  
*Prin. Invest.:* P H WINE  
*Tech. Officer:* GSFC/M J KURYLO  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 3855**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3926**  
 THE YANGTZE DELTA OF CHINA AS AN EVOLVING METRO-AGRO-  
 (148-65-80-04)  
 02/03/1997 - 11/30/2000      FY00: \$0      Total: \$1,446,050  
*Prin. Invest.:* W L CHAMEIDES  
*Tech. Officer:* GSFC/A J TUYAHOV  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4190**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3927**  
 LABORATORY EVALUATION AND APPLICATION OF MICROWAVE UNDER  
 SIMULATED CONDITIONS FOR PLANETARY ATMOSPHERES  
 06/10/1997 - 12/31/2000      FY00: \$87,057      Total: \$340,434  
*Prin. Invest.:* D G STEFFES  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7450**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3928**  
 RELATIONSHIPS BETWEEN INTERSTELLAR AND INTERPLANETARY  
 GRAINS  
 07/02/1998 - 06/30/2001      FY00: \$27,500      Total: \$86,500  
*Prin. Invest.:* D P BRADLEY, NONE  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7471**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3929**  
 POTENTIAL VORTICITY-BASED DIAGNOSES OF SEASONAL AND INTRA-  
 SEASONAL VARIABILITY IN AN ASSIMILATOR  
 06/08/1998 - 03/31/2001      FY00: \$52,300      Total: \$144,300  
*Prin. Invest.:* R X BLACK  
*Tech. Officer:* GSFC/S SCHUBERG  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8891**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3930**  
 PARTICIPATION OF THE HNO<sub>3</sub> CIMS INSTRUMENT IN THE SAGE III OZONE  
 LOSS AND VALIDATION EXPERIMENT (SOLVE)  
 12/06/1999 - 11/30/2000      FY00: \$66,500      Total: \$66,500  
*Prin. Invest.:* F EISELE  
*Tech. Officer:* GSFC/P DECOLA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8931**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3931**  
 LABORATORY INVESTIGATIONS OF STRATOSPHERIC & UPPER TROPO-  
 SPHERIC CHEMISTRY  
 01/19/2000 - 12/31/2000      FY00: \$166,259      Total: \$166,259  
*Prin. Invest.:* P H WINE  
*Tech. Officer:* GSFC/M KURYLO  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9868**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3932**  
 THE YANGTZE DELTA OF CHINA AS AN EVOLVING METRO-AGRO-  
 PLEX (MAP)  
 08/09/2000 - 10/31/2001      FY00: \$250,000      Total: \$250,000  
*Prin. Invest.:* W L CHAMEIDES  
*Tech. Officer:* GSFC/A J TUYAHOV  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1245**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3933**  
 EFFECT OF GRAVITY ON THE EVOLUTION OF SPATIAL ARRANGEMENT OF  
 FEATURES IN MICROSTRUCTURES  
 05/10/1996 - 05/09/2001      FY00: \$36,250      Total: \$320,000  
*Prin. Invest.:* A M GOKHALE  
*Tech. Officer:* MSFC/P DOTY, MSFC/R POWER  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 8 1547**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3934**  
 FUNDING FOR LAUNCH VEHICLE ASSESSMENT FOR SPACE SOLAR POWER  
 08/11/1998 - 12/15/1998      FY00: -\$331      Total: \$49,669  
*Prin. Invest.:* J R OLDS  
*Tech. Officer:* MSFC/J L HOWELL  
*CASE Category:* 13 - PHYSICS

**NAG 8 1597**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3935**  
 R/S CONCEPTUAL DESIGN FOR ADVANCED SPACE TRANSPORTATION  
 SYSTEMS  
 12/16/1998 - 12/15/2001      FY00: \$206,000      Total: \$439,000  
*Prin. Invest.:* J R OLDS  
*Tech. Officer:* MSFC/G M LYLES  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 8 1638**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3936**  
 RESEARCH ENTITLED: "FAULT TOLERANT NONLINEAR ADAPTATIVE  
 FLIGHT CONTROL FOR THE X-33"  
 09/24/1999 - 12/31/2000      FY00: \$14,914      Total: \$129,914  
*Prin. Invest.:* A CALISE  
*Tech. Officer:* MSFC/R DABNEY, MSFC/J HANSON  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 8 1713**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3937**  
 STUDY OF DEPLOYMENT OPTIONS AND EXPLORATION USES FOR SPACE  
 SOLAR POWER  
 03/01/2000 - 11/15/2000      FY00: \$149,999      Total: \$149,999  
*Prin. Invest.:* J OLDS  
*Tech. Officer:* MSFC/J HOWELL  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAS 1 18938**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3938**  
 SAGE III EXPERIMENT SCIENTIFIC SUPPORT/CUNNOLD  
 02/20/1990 - 01/31/2005      FY00: \$63,000      Total: \$562,700  
*Prin. Invest.:* D M CUNNOLD  
*Tech. Officer:* LARC/G L MADDREA/L R MCMASTER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 3 27361**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3939**  
 RF PROPAGATION EFFECTS  
 08/10/1994 - 09/30/1999      FY00: \$0      Total: \$129,834  
*Prin. Invest.:* D HOWARD, P STEFFES  
*Tech. Officer:* GRC/R BAUER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 1 229**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3940**  
 IMPROVING CONCEPTUAL DESIGN FOR LAUNCH VEHICLES MY 1/3  
 06/10/1996 - 09/22/1999      FY00: \$1      Total: \$147,001  
*Prin. Invest.:* J R OLDS  
*Tech. Officer:* LARC/R A LEPSCH, LARC/C H ELDRED  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NCC 1 296**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3941**  
 MEASUREMENTS OF NO AND NO2 OVER THE TROPICAL PACIFIC  
 04/28/1998 - 05/31/2001      FY00: \$113,216      Total: \$550,217  
*Prin. Invest.:* S T SANDHOLM  
*Tech. Officer:* LARC/J M HOELL, JR., LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 301**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3942**  
 MEASUREMENT OF OH, H2SO4, MSA, NH3, AND DMSO ABOARD THE P-3B  
 AIRCRAFT  
 05/27/1998 - 05/31/2001      FY00: \$156,880      Total: \$574,683  
*Prin. Invest.:* F L EISELE, R L MAULDIN  
*Tech. Officer:* LARC/J L ROPER, LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 306**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3943**  
 TROPOSPHERIC DIAGNOSTIC MODELING STUDIES OF PEM- TROPICS B  
 FIELD DATA: INVESTIGATION OF THE  
 07/10/1998 - 11/23/2001      FY00: \$193,271      Total: \$385,080  
*Prin. Invest.:* D D DAVIS, G CHEN  
*Tech. Officer:* LARC/J M HOELL, JR., LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 317**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3944**  
 MODELING AND DATA ANALYSIS OF PEM-TROPICS B OBSERVATIONS  
 08/17/1998 - 07/31/2001      FY00: \$0      Total: \$0  
*Prin. Invest.:* S C LIU  
*Tech. Officer:* LARC/J M HOELL, LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 933**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3945**  
 CULTURAL VARIABILITY IN CREW COMMUNICATION  
 09/12/1995 - 03/31/1999      FY00: -\$18,042      Total: \$257,958  
*Prin. Invest.:* K J KNOESPEL, U M FISCHER-LOSS  
*Tech. Officer:* ARC/J M ORASANU  
*CASE Category:* 62 - PSYCHOLOGY SOCIAL ASPECTS

**NCC 2 945**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3946**  
 ROTORCRAFT CENTERS OF EXCELLENCE  
 05/03/1996 - 02/28/2001      FY00: \$1,056,338      Total: \$5,830,069  
*Prin. Invest.:* D C SCHRAGE, D A PETERS, K B BOTA  
*Tech. Officer:* ARC/Y H YU, ARC/J M DAVIS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 961**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3947**  
 MODELING, TRAINING, AND AIDING IN AEROSPACE SYSTEMS  
 07/18/1996 - 05/31/2001      FY00: \$0      Total: \$571,333  
*Prin. Invest.:* C M MITCHELL  
*Tech. Officer:* ARC/E A PALMER, ARC/K CORKER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 981**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3948**  
 NONLINEAR FLIGHT CONTROL FOR TILT ROTOR AIRCRAFT OPERATING IN  
 THE TERMINAL AREA  
 03/17/1997 - 08/31/1999      FY00: \$0      Total: \$164,374  
*Prin. Invest.:* A J CAUSE  
*Tech. Officer:* ARC/W A DECKER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 1124**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3949**  
 HOW PROFESSIONAL PILOTS PERCEIVE & RESPOND TO AMBIGUOUS &  
 UNCERTAIN DECISION SITUATIONS  
 07/01/1999 - 12/31/2000      FY00: \$113,328      Total: \$188,616  
*Prin. Invest.:* U M FISCHER  
*Tech. Officer:* ARC/J M ORASANU  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NCC 2 1193**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3950**  
 A PROBABILISTIC APPROACH TO TECHNOLOGY, IDENTIFICATION, EVALUATION & SELECTION FOR LOW COST SPACE T  
 08/24/2000 - 08/14/2001      FY00: \$48,000      Total: \$48,000  
*Prin. Invest.:* D N MAVRIS  
*Tech. Officer:* ARC/M E LIVINGSTON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 5332**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3951**  
 EVALUATION OF ADVANCED THERMAL PROTECTION TECHNIQUES FOR FUTURE REUSABLE LAUNCH VEHICLES  
 07/20/1999 - 10/31/2000      FY00: \$40,752      Total: \$50,752  
*Prin. Invest.:* R OLDS  
*Tech. Officer:* ARC/P KOLOZIEJ, ARC/D J RASKY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 3 592**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3952**  
 APPLICATION OF THE GA TECH GENERIC IPPD METHODOLOGY TO SUPPORT IMPLEMENTATION OF THE NASA/INDUSTRY  
 12/30/1997 - 03/31/1999      FY00: \$0      Total: \$121,866  
*Prin. Invest.:* D P SCHRAGE, D N MAVRIS  
*Tech. Officer:* GRC/C L MEYERS, GRC/R M PLENCNER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 3 711**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3953**  
 DAMAGE MECHANICS MODELING FOR LIFE PREDICTION OF ULTRA HIGH TEMPERATURE POLYMER MATRIX COMPOSITES  
 06/07/1999 - 03/12/2001      FY00: \$100,000      Total: \$200,001  
*Prin. Invest.:* D TALREJA  
*Tech. Officer:* GRC/J R ELLIS  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NGT 1 52132**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3954**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/06/1996 - 12/31/2000      FY00: \$23,000      Total: \$99,000  
*Prin. Invest.:* A GLEZER, A GLEZER (ADVISOR)  
*Tech. Officer:* LARC/R D JOSLIN  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 1 52143**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3955**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 07/03/1996 - 08/14/1999      FY00: \$0      Total: \$66,000  
*Prin. Invest.:* S DONYLUK  
*Tech. Officer:* LARC/I S RAJU, LARC/C C POE, JR.  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 1 52156**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3956**  
 NASA MDA FELLOWSHIP PROGRAM NASA MULTIDISCIPLINARY DESIGN AND ANALYSIS  
 01/24/1997 - 11/30/1998      FY00: -\$34,902      Total: \$365,099  
*Prin. Invest.:* D P SCHRAGE  
*Tech. Officer:* LARC/G L GILES  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52162**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3957**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/11/1997 - 06/30/2001      FY00: \$0      Total: \$66,001  
*Prin. Invest.:* B V GIBBENS  
*Tech. Officer:* LARC/J E GARDNER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52163**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3958**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/03/1997 - 09/02/2001      FY00: \$10,000      Total: \$76,001  
*Prin. Invest.:* J R OLDS, D W WAY  
*Tech. Officer:* LARC/R A LEPSCH, LARC/L R ROWELL  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 1 52167**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3959**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 12/01/1997 - 11/30/2000      FY00: \$12,001      Total: \$66,001  
*Prin. Invest.:* K A CUNEFARE  
*Tech. Officer:* HQ/P BACON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52170**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3960**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 04/15/1997 - 01/01/2001      FY00: \$12,000      Total: \$66,001  
*Prin. Invest.:* F MISTREE  
*Tech. Officer:* LARC/T A ZANG  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 2 52253**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3961**  
 THERMAL ANALYSIS & TPS DESIGN OF ABLE/LEAD HP PERSONIC VEHICLES  
 07/20/1999 - 08/31/2001      FY00: \$22,000      Total: \$44,000  
*Prin. Invest.:* S M RUFFIN, V S MCKAY  
*Tech. Officer:* ARC/P F WERCINSKI, ARC/T C TAM  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 2 52255**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3962**  
 IMPLEMENTATION OF INTELLIGENT FLIGHT CONTROL ON THE NASA STONE SOUP SIMULATOR  
 07/20/1999 - 01/31/2000      FY00: \$0      Total: \$22,000  
*Prin. Invest.:* A CAUS  
*Tech. Officer:* ARC/J KANESHIGE, ARC/S LAU  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 2 52266**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3963**  
 FULLY AUTOMATED CARTESIAN GRID CFD APPLICATIONS FOR MDO IN HIGH - SPEED FLOWS  
 07/17/2000 - 07/14/2001      FY00: \$22,000      Total: \$22,000  
*Prin. Invest.:* S M RUFFIN  
*Tech. Officer:* ARC/M J AHOSMIS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 3 52329**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3964**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/10/1997 - 05/30/2001      FY00: \$0      Total: \$66,000  
*Prin. Invest.:* E W ZEGURA  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NGT 3 52334**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3965**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/11/1997 - 08/31/2000      FY00: \$0      Total: \$66,000  
*Prin. Invest.:* G T ZHOU  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 3 52338**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3966**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 09/11/1997 - 08/03/2000      FY00: \$0      Total: \$66,000  
*Prin. Invest.:* M LIU  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 3 52371**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3967**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 06/26/2000 - 08/31/2001      FY00: \$22,000      Total: \$22,000  
*Prin. Invest.:* J H GINSBERG  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 4 52405**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3968**  
 GRADUATE STUDENT RESEARCHERS PROGRAM ROBUST LINEAR &  
 NONLINEAR CONTROL FOR JET ENGINE  
 06/25/1997 - 07/01/2000      FY00: \$0      Total: \$65,860  
*Prin. Invest.:* J CORRADO, W HADDAD  
*Tech. Officer:* DFRC/K K GUPTA  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 5 31**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3969**  
 LOSSLESS IMAGE COMPRESSION USING ALPHABET CONSTRAINED  
 FILTER BANKS  
 07/29/1996 - 12/31/1999      FY00: \$0      Total: \$66,000  
*Prin. Invest.:* M SMITH  
*Tech. Officer:* GSFC/G SOFFEN  
*CASE Category:* 22 - COMPUTER SCIENCE

**NGT 5 30069**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3970**  
 DEVELOPMENT OF A SELECT ION ATMOSPHERIC PRESSURE C S SPEC-  
 TROMETRY TECHNIQUE FOR THE MEASUREMENT OF T  
 09/10/1997 - 08/31/2000      FY00: \$0      Total: \$65,950  
*Prin. Invest.:* D WINE  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40023**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3971**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 02/03/1997 - 01/31/2001      FY00: \$460,000      Total: \$1,744,751  
*Prin. Invest.:* E ARMANIOS  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50284**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3972**  
 EXPLOITING TEMPORAL UNCERTAINTY IN SIMULATION MODELS  
 06/23/2000 - 07/31/2001      FY00: \$22,000      Total: \$22,000  
*Prin. Invest.:* R FUJIMOTO  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50330**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3973**  
 THE EFFECTS ON LAND SURFACE HETEROGENETIES ON AEROSOL  
 CONCENTRATIONS IN CHINA & THEIR IMPACT ON REG  
 08/17/2000 - 08/31/2001      FY00: \$22,000      Total: \$22,000  
*Prin. Invest.:* W L CHAMEIDES  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 8 52854**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3974**  
 DEVELOPMENT OF A TOOL FOR CONCEPTUAL DESIGN OF ROCKET BASED  
 COMBINED CYCLE PROPULSION SYSTEMS  
 07/21/1998 - 08/14/2001      FY00: \$22,000      Total: \$66,000  
*Prin. Invest.:* J R OLDS  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 8 52881**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3975**  
 QUANTITATIVE CHARACTERIZATION OF GRAVITATIONAL EFFECTS ON THE  
 EVOLUTION OF MICROSTRUCTURE.  
 09/14/1999 - 09/13/2001      FY00: \$22,000      Total: \$44,000  
*Prin. Invest.:* A GOKHALE  
*Tech. Officer:* MSFC/J DOWDY  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NGT 8 52887**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3976**  
 DEV OF PREDICTIVE MODELS OF ADVANCED PROPULSION CONCEPTS  
 FOR LOW COST SPACE TRANSPORTATION  
 05/24/2000 - 07/31/2003      FY00: \$22,000      Total: \$22,000  
*Prin. Invest.:* J SEITZMAN  
*Tech. Officer:* MSFC/S NASH-STEVENSON  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT13 52742**      **GEORGIA INSTITUTE OF TECHNOLOGY**      **3977**  
 RAPID MEASUREMENTS OF AEROSOL BULK COMPOSITION USING A  
 PARTICLE INTO LIQUID SAMPLING SYSTEM  
 07/12/2000 - 07/31/2001      FY00: \$22,000      Total: \$22,000  
*Prin. Invest.:* K MAXWELL, R WEBER  
*Tech. Officer:* SSC/R TRAVIS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 254**      **GEORGIA SOUTHERN UNIVERSITY**      **3978**  
 "PHYSICAL PROPERTIES OF PLANETARY MOLECULES", GSFC CONTROL  
 NUMBER 5-3326  
 10/30/1997 - 10/31/2000      FY00: \$0      Total: \$83,883  
*Prin. Invest.:* R NELSON, NONE  
*Tech. Officer:* GSFC/J ALLEN  
*CASE Category:* 12 - CHEMISTRY

**NAG 2 1271**      **GEORGIA STATE UNIVERSITY**      **3979**  
 ADOPTION OF RHESUS MACAQUES TO HYPERDYNAMIC ENVIRONMENT  
 (BEHAVIOR & PERFORMANCE)  
 10/21/1998 - 12/31/1999      FY00: \$0      Total: \$75,000  
*Prin. Invest.:* D A WASHBURN, R RUMBAUGH  
*Tech. Officer:* ARC/R E GRINDELAND, ARC/K L SOUZA  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 4950**      **GEORGIA STATE UNIVERSITY**      **3980**  
 WAVELENGTH-TUNABLE NOVEL SEMICONDUCTOR FIR DETECTOR  
 RESEARCH  
 06/23/1997 - 12/31/2000      FY00: \$30,000      Total: \$158,000  
*Prin. Invest.:* D PERERA  
*Tech. Officer:* GSFC/H THRONSON  
*CASE Category:* 11 - ASTRONOMY



## NASA'S UNIVERSITY PROGRAM

GEORGIA

**NAG 5 6904** **GEORGIA STATE UNIVERSITY** **3981**  
 CROSS-CORRELATION ANALYSIS OF UV PROFILE VARIATIONS AND  
 NONRADIAL PULSATIONS IN BESTARS  
 02/06/1998 - 01/31/2001 FY00: \$0 Total: \$65,300  
 Prin. Invest.: D GIES  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6929** **GEORGIA STATE UNIVERSITY** **3982**  
 ORFEUS EDUCATIONAL OUTREACH PROGRAM  
 01/29/1998 - 01/31/2001 FY00: \$0 Total: \$10,047  
 Prin. Invest.: H MILLER  
 Tech. Officer: GSFC/R POLIDAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7324** **GEORGIA STATE UNIVERSITY** **3983**  
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS  
 04/28/1998 - 04/30/2000 FY00: \$0 Total: \$7,000  
 Prin. Invest.: H MILLER  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7752** **GEORGIA STATE UNIVERSITY** **3984**  
 PHOTOIONIZATION AND RELATED DIELECTRONIC/RADIATIVE RECOMBINA-  
 TION ANELASTIC SCATTERING CROSS SE  
 11/25/1998 - 12/31/2000 FY00: \$47,100 Total: \$96,100  
 Prin. Invest.: S T MANSON  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7830** **GEORGIA STATE UNIVERSITY** **3985**  
 SIMULTANEOUS RXTE/OSSE OBSERVATIONS OF THE SEYFERT 1 GALAXY  
 AKN 120  
 11/17/1998 - 11/30/1999 FY00: \$0 Total: \$5,000  
 Prin. Invest.: H MILLER  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1107** **KENNESAW STATE UNIVERSITY** **3986**  
 JOVE  
 10/24/1994 - 05/31/2000 FY00: -\$203 Total: \$35,797  
 Prin. Invest.: T LAROSA  
 Tech. Officer: MSFC/F SIX  
 CASE Category: 11 - ASTRONOMY

**NAG 2 1416** **MEDICAL COLLEGE OF GEORGIA** **3987**  
 CELLULAR & MOLECULAR MECHANISMS MEDIATING RAPID RE SEALING OF  
 GRAVITY-INDUCED PLASMA MEMBRANE DISRUPT  
 07/12/2000 - 12/31/2000 FY00: \$155,711 Total: \$155,711  
 Prin. Invest.: P L MCNEIL  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1071** **MERCER UNIVERSITY CENTRAL OFFICE** **3988**  
 SUMMER FACULTY DIRECTOR'S GRANT  
 01/20/1999 - 12/31/1999 FY00: \$0 Total: \$15,500  
 Prin. Invest.: B W TOBIN  
 Tech. Officer: JSC/D G SICKOREZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6602** **MOREHOUSE COLLEGE** **3989**  
 AN INFRARED STUDY OF ORTHO AND PARA HYDROGEN ON INTERSTELLAR  
 GRAINS  
 11/13/1997 - 10/31/2000 FY00: \$0 Total: \$221,667  
 Prin. Invest.: J KING, JR.  
 Tech. Officer: GSFC/J BERGSTRAHL  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1231** **MOREHOUSE COLLEGE** **3990**  
 R/S A NASA/UNIVERSITY JOINT VENTURE IN SPACE SCIENCE (JOVE), THIS  
 DOCUMENT 1ST YEAR FUNDING  
 10/31/1996 - 08/10/1999 FY00: -\$3,500 Total: \$96,500  
 Prin. Invest.: G WALKER, O H AKPAN  
 Tech. Officer: MSFC/E COTHRAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1492** **MOREHOUSE COLLEGE** **3991**  
 INSPIRING CAREERS IN ENGINEERING, MATHEMATICS, AND SCIENCE  
 (ICEMS)  
 06/04/1998 - 09/07/2001 FY00: \$99,137 Total: \$297,411  
 Prin. Invest.: E McDONALD  
 Tech. Officer: MSFC/A BEAM  
 CASE Category: 21 - MATHEMATICS

**NAG 8 1636** **MOREHOUSE COLLEGE** **3992**  
 "USING THE NASA ROTATING BIOREACTOR TO STUDY ROLE OF NITRIC  
 OXIDE IN BREAST-INDUCED ANGIOGENESIS"  
 09/30/1999 - 09/29/2001 FY00: \$34,767 Total: \$148,824  
 Prin. Invest.: G L SANFORD  
 Tech. Officer: MSFC/R RICHMOND  
 CASE Category: 61 - PSYCHOLOGY BIOLOGY

**NAG 8 1711** **MOREHOUSE COLLEGE** **3993**  
 STRATEGIC PREPAREDNESS ADVANCING CAREERS IN ENGINEERING/  
 SCIENCES (SPACE)  
 03/29/2000 - 03/28/2003 FY00: \$1,501,290 Total: \$1,501,290  
 Prin. Invest.: J KING  
 Tech. Officer: MSFC/W LOVE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 964** **MOREHOUSE COLLEGE** **3994**  
 SIMULATED MICROGRAVITY ...  
 09/25/1997 - 09/30/2001 FY00: \$100,000 Total: \$300,000  
 Prin. Invest.: K DUTT  
 Tech. Officer: JSC/K KRISHNEN  
 CASE Category: 56 - MEDICAL

**NGT 8 52872** **MOREHOUSE COLLEGE** **3995**  
 STRATEGIC PREPAREDNESS ADVANCING CAREERS IN ENGINEERING  
 03/08/1999 - 12/31/1999 FY00: \$0 Total: \$1,551,744  
 Prin. Invest.: B EVANS  
 Tech. Officer: MSFC/W LOVE, MSFC/A C BEAM  
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

**NAG 2 1215** **MOREHOUSE SCHOOL MED** **3996**  
 PRE-METARSAL DIFFERENTIATION & MINERALIZATION  
 05/04/1998 - 06/30/2001 FY00: \$0 Total: \$100,789  
 Prin. Invest.: B J KLEMENT  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

<p><b>NAG 2 1381</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>3997</b>            BONE &amp; CALCIUM METABOLISM IN DAHL SALT SENSITIVE &amp; SALT RESE-            TANT RATS WITH UNLOADED HINDLIMBS            09/03/1999 - 08/31/2001                      FY00: \$28,000                      Total: \$91,598  <i>Prin. Invest.:</i> M THIERRY-PALMER  <i>Tech. Officer:</i> ARC/B J COLLINS  <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NCC 9 112</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>4005</b>            SPACE MEDICINE            09/26/2000 - 06/30/2001                      FY00: \$295,342                      Total: \$295,342  <i>Prin. Invest.:</i> M THIERRY-PALMER  <i>Tech. Officer:</i> JSC/C SAMS, JSC/G HENDERSEN  <i>CASE Category:</i> 56 - MEDICL</p>
<p><b>NAG 2 6029</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>3998</b>            THE NASASPACE BIOLOGY RESEARCH ASSOCIATE PROGRAM F OR THE            21ST CENTRUY            03/01/1999 - 12/31/1999                      FY00: \$0                      Total: \$48,123  <i>Prin. Invest.:</i> G SONNENFELD  <i>Tech. Officer:</i> ARC/B LUNA, ARC/R GRYNES  <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER</p>	<p><b>NCCW 83</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>4006</b>            DEVELOPMENT OF A MINORITY SPACE MEDICINE AND LIFE SCIENCE            RESEARCH CENTER            08/11/1995 - 06/30/2000                      FY00: \$0                      Total: \$2,780,098  <i>Prin. Invest.:</i> M L THERRY-PALMER  <i>Tech. Officer:</i> HQ/B L WHITE  <i>CASE Category:</i> 56 - MEDICL</p>
<p><b>NAG 9 852</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>3999</b>            ASSESSING THE PUTATIVE MACHANISMS OF GRAVITY INDUS ED            CELLULAR CHANGES            09/28/1995 - 09/30/1998                      FY00: -\$85                      Total: \$219,737  <i>Prin. Invest.:</i> G L SANFORD  <i>Tech. Officer:</i> JSC/J D ATKINSON  <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)</p>	<p><b>NGT 2 52239</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>4007</b>            MINOTIRY COMPONENT FOR THE SPACE BIOLOGY RESEARCH ASSOCI-            ATES PROGRAM            02/26/1998 - 12/31/1999                      FY00: \$0                      Total: \$149,394  <i>Prin. Invest.:</i> G L SANFORD  <i>Tech. Officer:</i> ARC/B LUNA, ARC/R A GRYMES  <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER</p>
<p><b>NAG 9 963</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>4000</b>            GRAVITY-INDUCED CHANGES ON THE STERIDOGENSIS ...            09/25/1997 - 09/30/2000                      FY00: \$100,000                      Total: \$299,966  <i>Prin. Invest.:</i> R SRIDARAN  <i>Tech. Officer:</i> JSC/K KRISHEN  <i>CASE Category:</i> 56 - MEDICL</p>	<p><b>NAG 5 9157</b>                      <b>PAINE COLLEGE</b>                      <b>4008</b>            PRE-COLLEGE ENRICHMENT PROGRAM IN MATHEMATICS SCIENCE, ENGI-            NEERING AND TECHNOLOGY            03/03/2000 - 02/28/2001                      FY00: \$100,000                      Total: \$100,000  <i>Prin. Invest.:</i> R KESSLER  <i>Tech. Officer:</i> GSFC/M STOUTSENBERGER  <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 9 971</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>4001</b>            EFFECT OF MICRO GRAV ON DISPO &amp; BIOTRANS OF THREAPEUTIC            AGENTS ...            09/25/1997 - 04/30/2000                      FY00: \$0                      Total: \$388,518  <i>Prin. Invest.:</i> D POTTER  <i>Tech. Officer:</i> JSC/L PUTCHA  <i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR</p>	<p><b>NAG 3 2241</b>                      <b>SAVANNAH STATE UNIVERSITY</b>                      <b>4009</b>            RENEWABLE ENERGY SCADE/TRAINING USING ACTS RENEWABLE            ENERGY SCADE/TRAINING USING ACTS            03/17/1999 - 02/03/2001                      FY00: \$90,086                      Total: \$212,086  <i>Prin. Invest.:</i> D KALU  <i>Tech. Officer:</i> GRC/R J ACOSTA  <i>CASE Category:</i> 49 - ENGINEERING, OTHER</p>
<p><b>NAG 9 1164</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>4002</b>            TISSUE ENGINEERING OF HUMAN RETINA IN NASA BIOREATOR FOR            TRANSPLANT            10/01/1999 - 09/30/2001                      FY00: \$168,447                      Total: \$168,447  <i>Prin. Invest.:</i> K DUTT  <i>Tech. Officer:</i> JSC/C SAMS  <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER</p>	<p><b>NAG10 250</b>                      <b>SAVANNAH STATE UNIVERSITY</b>                      <b>4010</b>            INSTITUTION SERVICES FOR STUDENTS WITH DISABILITY            09/23/1998 - 03/31/2000                      FY00: -\$6,604                      Total: \$93,386  <i>Prin. Invest.:</i> T EATON  <i>Tech. Officer:</i> KSC/R M C KINNEY  <i>CASE Category:</i> 29 - MATH/COMPUTER SCI, OTHER</p>
<p><b>NCC 2 936</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>4003</b>            THE NEUROLAB EDUCATION PROGRAM IN THE DECADE OF TH E BRAIN            12/05/1995 - 06/30/1999                      FY00: -\$1,010                      Total: \$1,383,518  <i>Prin. Invest.:</i> W W SULLIVAN  <i>Tech. Officer:</i> ARC/D R LISKOWSKY, ARC/K A SOUZA  <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)</p>	<p><b>NAG10 266</b>                      <b>SAVANNAH STATE UNIVERSITY</b>                      <b>4011</b>            HIGH SCHOOL/HIGH TECH PROGRAM A PARTNERSHIP OF SSU WITH THE            GEORGIA COMMITTEE ON EMPLOYMENT OF PEOP            09/01/1999 - 08/31/2001                      FY00: \$25,000                      Total: \$124,971  <i>Prin. Invest.:</i> D SAJWAN  <i>Tech. Officer:</i> KSC/R J MCKINNEY  <i>CASE Category:</i> 79 - SOCIAL SCIENCE, OTHER</p>
<p><b>NCC 9 53</b>                      <b>MOREHOUSE SCHOOL MED</b>                      <b>4004</b>            DEVELOP MINORITY UNIV SPACE MEDICINE CENTER            12/18/1997 - 01/01/2001                      FY00: \$619,658                      Total: \$3,129,072  <i>Prin. Invest.:</i> M THIERRY-PALMER  <i>Tech. Officer:</i> JSC/L ARMENDARIZ  <i>CASE Category:</i> 56 - MEDICL</p>	<p><b>NAG 3 1974</b>                      <b>SPELMAN COLLEGE</b>                      <b>4012</b>            DEVELOPMENT OF SYNCHRONOUSLY SCANNED OPO CARS AS N EW            PROBE FOR HOSTILE ENVIRONMENTS            10/11/1996 - 10/03/1999                      FY00: -\$3,952                      Total: \$145,048  <i>Prin. Invest.:</i> P C CHEN  <i>Tech. Officer:</i> GRC/Y R HICKS  <i>CASE Category:</i> 12 - CHEMISTRY</p>

<b>NAG 3 2486</b> <b>SPELMAN COLLEGE</b> <b>4013</b> DEVELOPMENT OF A PROBE FOR DETERMINING FUEL-TO-OXY GEN RATIOS IN AIRPLANE FUEL TANKS 09/01/2000 - 08/31/2001      FY00: \$42,000      Total: \$42,000 Prin. Invest.: D CHEN Tech. Officer: GRC/Q NGUYEN CASE Category: 41 - AERONAUTICAL ENGR	<b>NCC 8 194</b> <b>SPELMAN COLLEGE</b> <b>4021</b> CRYSTAL ENGINEERING OF NONLINEAR OPTICAL COMPOUNDS NEW APPROACH FOR PREDICTING HYPERPOLARIZABILITIES 09/30/1999 - 09/30/2001      FY00: \$128,337      Total: \$298,134 Prin. Invest.: O SCRIVEN Tech. Officer: MSFC/D O FRAIZER CASE Category: 59 - LIFE SCIENCE, OTHER
<b>NAG 5 9313</b> <b>SPELMAN COLLEGE</b> <b>4014</b> BUILDING CAPITAL IN THE SCIENCES: TECHNOLOGY-BASED INSTRUCTIONAL LABORATORY DESIGN AND DISTANCE EDUC 03/22/2000 - 04/30/2001      FY00: \$915,000      Total: \$915,000 Prin. Invest.: S T BOZEMAN Tech. Officer: GSFC/C PERSON CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NGT 8 52873</b> <b>SPELMAN COLLEGE</b> <b>4022</b> WOMEN IN SCIENCE AND ENGINEERING PROGRAM 03/08/1999 - 12/31/1999      FY00: -\$163,105      Total: \$1,428,370 Prin. Invest.: C GILLYARD Tech. Officer: MSFC/W LOVE, MSFC/A BEAM CASE Category: 79 - SOCIAL SCIENCE, OTHER
<b>NAG 8 1635</b> <b>SPELMAN COLLEGE</b> <b>4015</b> FIFTH ANNUAL MODEL INSTITUTION FOR EXCELLANCE CONFERENCE 09/29/1999 - 11/29/2000      FY00: \$0      Total: \$438,331 Prin. Invest.: E FALCONER Tech. Officer: MSFC/W LOVE, MSFC/A C BEAM CASE Category: 49 - ENGINEERING, OTHER	<b>NAG 5 3433</b> <b>UNIVERSITY OF GEORGIA</b> <b>4023</b> THE RELATIONSHIP BETWEEN GAS AND DUST IN HI SHELLS 10/01/1996 - 09/30/1998      FY00: -\$268      Total: \$32,732 Prin. Invest.: L MAGNANI Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY
<b>NAG 8 1712</b> <b>SPELMAN COLLEGE</b> <b>4016</b> WOMEN IN SCIENCES AND ENGINEERING SCHOLARS PROGRAM 05/15/2000 - 04/01/2003      FY00: \$1,500,000      Total: \$1,500,000 Prin. Invest.: C GILLYARD Tech. Officer: MSFC/W LOVE CASE Category: 49 - ENGINEERING, OTHER	<b>NAG 5 3618</b> <b>UNIVERSITY OF GEORGIA</b> <b>4024</b> MODEL ATMOSPHERES OF NOVAE IN OUTBURST 12/05/1996 - 09/30/1999      FY00: \$0      Total: \$61,600 Prin. Invest.: P H HAUSCHILD Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY
<b>NCC 3 758</b> <b>SPELMAN COLLEGE</b> <b>4017</b> DEVELOPMENT OF A NOVEL MULTI-COMPONENT PROBE FOR C OMBUS-TION AND PROPULSION DIAGNOSTICS 12/30/1999 - 01/31/2001      FY00: \$80,000      Total: \$80,000 Prin. Invest.: D C CHEN Tech. Officer: GRC/Q NGUYEN CASE Category: 41 - AERONAUTICAL ENGR	<b>NAG 5 3619</b> <b>UNIVERSITY OF GEORGIA</b> <b>4025</b> MULTIWAVELENGTH MODELING OF NOVA ATMOSPHERES 12/06/1996 - 04/30/2001      FY00: \$0      Total: \$290,329 Prin. Invest.: P HAUSCHILD Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY
<b>NCC 8 71</b> <b>SPELMAN COLLEGE</b> <b>4018</b> POTENTIAL USE OF HALOGENATED TETRAPHENYLPORPHYRINS IN NONLINEAR OPTICAL MATERIALS 04/06/1995 - 06/30/1999      FY00: \$0      Total: \$198,355 Prin. Invest.: B H CARDELINO, P C CHEN Tech. Officer: MSFC/B G PENN, MSFC/W J LOVE CASE Category: 12 - CHEMISTRY	<b>NAG 5 6322</b> <b>UNIVERSITY OF GEORGIA</b> <b>4026</b> STABLE ISOTOPIC ANALYSIS OF SECONDARY MINERALS IN 09/05/1997 - 07/31/1999      FY00: \$0      Total: \$45,000 Prin. Invest.: C ROMANEK Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NCC 8 144</b> <b>SPELMAN COLLEGE</b> <b>4019</b> INTEGRATED APPROACH TO THE PREDICTION OF HYPER- POLARIZABILITY OF ORGANIC CRYSTALS 08/22/1997 - 06/30/2000      FY00: \$0      Total: \$291,363 Prin. Invest.: B CARDELINO, NONE Tech. Officer: MSFC/C MOORE CASE Category: 19 - PHYSICAL SCIENCE, OTHER	<b>NAG 5 6479</b> <b>UNIVERSITY OF GEORGIA</b> <b>4027</b> ENHANCED REMOTE SENSING CAPABILITIES FOR INTEGRATE D ASSES-MENTS OF ENVIRONMENTAL CHANGE 11/18/1997 - 09/30/1999      FY00: \$0      Total: \$202,995 Prin. Invest.: R A WELCH Tech. Officer: GSFC/M Y WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NCC 8 179</b> <b>SPELMAN COLLEGE</b> <b>4020</b> MODEL INSTITUTIONS FOR EXCELLENCE (MIE) 03/22/1999 - 12/31/2000      FY00: \$1,957,000      Total: \$4,121,995 Prin. Invest.: E Z FALCONER, A THOMPSON Tech. Officer: MSFC/W J LOVE CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 5 6769</b> <b>UNIVERSITY OF GEORGIA</b> <b>4028</b> DETERMINING THE NATURE OF THETA-1 ORI C'S X-RAY EM ISSION 01/21/1998 - 01/31/2000      FY00: \$0      Total: \$16,600 Prin. Invest.: J CAILLAUT Tech. Officer: GSFC/N WHITE CASE Category: 11 - ASTRONOMY

**NAG 5 8902 UNIVERSITY OF GEORGIA 4029**  
 DETERMINING THE AGES OF BETA PIC STARS  
 02/06/1998 - 01/31/2000 FY00: \$0 Total: \$39,900  
*Prin. Invest.:* J CAILLAULT  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8376 UNIVERSITY OF GEORGIA 4030**  
 THE ROLE OF TRANSLUCENT CLOUDS IN GALACTIC STAR FORMATION (LTS498)  
 03/09/1999 - 03/14/2001 FY00: \$30,000 Total: \$60,000  
*Prin. Invest.:* L MAGNANI  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8425 UNIVERSITY OF GEORGIA 4031**  
 NLTE MODEL ATMOSPHERES FOR VERY LOW MASS STARS (LT SA98)  
 05/10/1999 - 05/14/2001 FY00: \$67,861 Total: \$136,653  
*Prin. Invest.:* P H HAUSCHILD  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8469 UNIVERSITY OF GEORGIA 4032**  
 THE EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRA SS LAND REGIONS  
 05/06/1999 - 06/30/2001 FY00: \$0 Total: \$90,185  
*Prin. Invest.:* T L MOTE  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 8951 UNIVERSITY OF GEORGIA 4033**  
 TEMPERATURE DEPENDENT ELECTRON RECOMBINATION RATES & SPECTRAL SIGNATURES OF ION REACTIONS RELEVANT TO  
 01/21/2000 - 01/31/2001 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* N G ADAMS  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9088 UNIVERSITY OF GEORGIA 4034**  
 ULTRAVIOLET & VISIBLE EMISSION MECHANISMS IN ASTRO PHYSICS  
 02/23/2000 - 01/31/2001 FY00: \$68,766 Total: \$68,766  
*Prin. Invest.:* P C STANCIL  
*Tech. Officer:* GSFC/P CRANE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9222 UNIVERSITY OF GEORGIA 4035**  
 NON-LTE MODEL ATMOSPHERES OF HOT STARS WITH WINDS  
 04/05/2000 - 04/14/2001 FY00: \$82,008 Total: \$82,008  
*Prin. Invest.:* P H HAUSCHILD  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9396 UNIVERSITY OF GEORGIA 4036**  
 FUSE OBSERVATIONS OF GALACTIC AND LMC NOVAE IN OUT BURST - FUSE  
 04/05/2000 - 04/30/2001 FY00: \$9,084 Total: \$9,084  
*Prin. Invest.:* P H HAUSCHILD  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 9 1110 UNIVERSITY OF GEORGIA 4037**  
 CONTROLLED GROWTH OF BIOLOGIC AND ABIOTIC CARBONATES AND FEROXIDES  
 05/14/1999 - 05/13/2000 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* C S ROMANEK  
*Tech. Officer:* JSC/E K GIBSON  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAS 8 97061 UNIVERSITY OF GEORGIA 4038**  
 LAND USE/COVER AND LAND SURFACE TEMPERATURE CHANGE MAPPING & NORMALIZED DIFFERENCE VEGETATION INDEX  
 11/04/1996 - 11/03/1999 FY00: \$0 Total: \$158,755  
*Prin. Invest.:* D P LO  
*Tech. Officer:* MSFC/T MILLER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 5 30017 UNIVERSITY OF GEORGIA 4039**  
 MEASUREMENT OF IN SITU GROWTH RATES OF TWO IMPORTANT PRODUCERS USING FLOW CYTOMETRY AND RNA-TARGETED  
 10/23/1996 - 12/31/1999 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* B BINDER  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 1 2039 VALDOSTA STATE UNIVERSITY 4040**  
 GIS LABORATORY FOR EDUCATION, RESEARCH, TRAINING, AND APPLICATION OF GEOGRAPHIC INFORMATION SYSTEM  
 03/30/1998 - 12/31/1999 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* L A MCGLINN  
*Tech. Officer:* LARC/W B BALL  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3468 VALDOSTA STATE UNIVERSITY 4041**  
 ROTATIONAL EVOLUTION OF COOL STARS FROM THE ZAMS  
 10/28/1996 - 10/31/1999 FY00: -\$2,616 Total: \$76,384  
*Prin. Invest.:* K L RUMSTAY  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1264 VALDOSTA STATE UNIVERSITY 4042**  
 "JOVE" RESEARCH  
 01/17/1997 - 08/31/1999 FY00: \$0 Total: \$93,591  
*Prin. Invest.:* M LEAKE, D BOGYO  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 5303 VALDOSTA STATE UNIVERSITY 4043**  
 THE USE OF WATER VAPOR BY SUBAERIAL ALGAE  
 12/24/1998 - 12/31/1999 FY00: -\$7 Total: \$11,759  
*Prin. Invest.:* J A NIENOW  
*Tech. Officer:* ARC/C P MCKAY  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

## HAWAII

**NAG 1 1764 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4045**  
 AEROSOL PHYSICO-CHEMISTRY AND CYCLING IN THE TROPOSPHERE:  
 MEASUREMENTS FOR PEM-TROPICS  
 09/29/1995 - 10/31/1999 FY00: \$1 Total: \$270,417  
 Prin. Invest.: D D CLARKE  
 Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1850 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4046**  
 STRESS RECOVERY AND ERROR ESTIMATION FOR 3-D SHELL STRUCTURES  
 08/01/1996 - 04/30/2000 FY00: \$0 Total: \$152,211  
 Prin. Invest.: H R RIGGS  
 Tech. Officer: LARC/J M HOUSNER  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NAG 2 1293 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4047**  
 1999 BIOASTRONOMY MEETING  
 02/09/1999 - 05/31/2000 FY00: \$0 Total: \$17,750  
 Prin. Invest.: K MEECH  
 Tech. Officer: ARC/L T CAROFF  
 CASE Category: 99 - MULTI-INTERDISCIPLINARY, OTHER

**NAG 2 1374 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4048**  
 THE EVOLUTIONARY ORIGIN & DEPLOYMENT OF HOX & PARA HOX GENES  
 IN METAZOA  
 08/12/1999 - 12/30/2000 FY00: \$137,424 Total: \$191,859  
 Prin. Invest.: M Q MARTINDALE  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIRONMENTAL)

**NAG 3 1912 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4049**  
 GAS-PHASE COMBUSTION SYNTHESIS OF METAL AND CERAMIC NANOPARTICLES  
 07/09/1996 - 06/24/2000 FY00: \$0 Total: \$58,761  
 Prin. Invest.: B H CHAO  
 Tech. Officer: GRC/S GOKOGLU  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 931 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4050**  
 LOW COMPLEXITY, HIGH-PERFORMANCE, BANDWIDTH EFFICIENT  
 CODING AND CODED MODULATION TECHNIQUES...  
 07/01/1987 - 07/31/1999 FY00: -\$246 Total: \$677,225  
 Prin. Invest.: S LIN  
 Tech. Officer: GSFC/J C MORAKIS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 2523 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4051**  
 X-RAY TEMPERATURE FOR A COMPLETE SAMPLE OF DISTANT CLUSTERS  
 02/24/1994 - 12/14/1999 FY00: \$0 Total: \$92,232  
 Prin. Invest.: J P HENRY  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2663 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4052**  
 PARTICIPATION IN THE CONSOLIDATED INFRARED SPECTROMETER  
 (CIRS) AS CO-INVESTIGATOR  
 07/21/1994 - 07/31/2000 FY00: \$0 Total: \$30,669  
 Prin. Invest.: T OWEN  
 Tech. Officer: GSFC/V KUNDE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2695 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4053**  
 NASA DIGITAL IMAGE DATA DISTRIBUTION FOR EDUCATION PUBLIC  
 ACCESS AND TOURISM IN HAWAII: A MODEL SYSTEM  
 08/17/1994 - 08/31/1999 FY00: -\$163 Total: \$851,047  
 Prin. Invest.: P J MOUGINIS-MARK  
 Tech. Officer: GSFC/F HASLER  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 3000 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4054**  
 ANALYSIS OF DIGITAL TOPOGRAPHY OF VOLCANOES  
 07/18/1995 - 07/31/1999 FY00: -\$908 Total: \$340,318  
 Prin. Invest.: P J MOUGINIS-MARK  
 Tech. Officer: GSFC/H F FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3370 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4055**  
 TWO EXTREMELY RED GALAXIES  
 09/06/1996 - 08/14/2001 FY00: \$0 Total: \$578,500  
 Prin. Invest.: R D JOSEPH  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 3451 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4056**  
 ANALYSIS OF VOLCANIC ERUPTIONS AND FIRES USING LANDSAT 7  
 10/07/1996 - 12/31/2000 FY00: \$92,816 Total: \$270,631  
 Prin. Invest.: FLYNN, NONE  
 Tech. Officer: GSFC/D L WILLIAMS  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 3625 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4057**  
 SPECTRAL STUDIES OF POSSIBLE ASTEROIDAL MATERIALS  
 02/12/1997 - 10/31/2000 FY00: \$0 Total: \$119,100  
 Prin. Invest.: J F BELL  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3635 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4058**  
 REMOTE SENSING AND GEOLOGIC STUDIES OF PLANETARY C  
 02/12/1997 - 10/31/2000 FY00: \$0 Total: \$210,800  
 Prin. Invest.: B R HAWKE  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3731 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4059**  
 ADAPTIVE OPTICS IMAGING OF SOLAR SYSTEM OBJECTS  
 03/03/1997 - 12/31/1999 FY00: \$0 Total: \$132,000  
 Prin. Invest.: D J RODDIER  
 Tech. Officer: GSFC/J BERGSTRAHL  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3766 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4060**  
 MINERALOGICAL MAPPING OF THE MOON  
 02/20/1997 - 09/30/2000 FY00: \$137,750 Total: \$367,750  
 Prin. Invest.: P G LUCEY  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3782 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4061**  
 SHARING DISCOVERIES IN PLANETARY GEOSCIENCE ON THE INTERNET  
 02/25/1997 - 06/30/2000 FY00: \$0 Total: \$192,340  
 Prin. Invest.: G TAYLOR  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 99 - MULTI-INTERDISCIPLINARY, OTHER

**NAG 5 3875 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4062**  
 REGIONAL PLANETARY IMAGE CENTER  
 02/10/1997 - 11/14/2000 FY00: \$47,785 Total: \$197,785  
*Prin. Invest.:* E R HAWKE  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4024 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4063**  
 APPLICATIONS OF SARS TO URBAN CLIMATOLOGY: ESTIMATI MOISTURE  
 AVAILABILITY FROM RADARSAT IMAGES OF THE  
 03/17/1997 - 01/31/2001 FY00: \$0 Total: \$130,573  
*Prin. Invest.:* B M DOUSSET  
*Tech. Officer:* GSFC/R H THOMAS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4150 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4064**  
 VOLATILE EVOLUTION  
 04/02/1997 - 10/31/2000 FY00: \$0 Total: \$340,000  
*Prin. Invest.:* F P FANALE  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4212 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4065**  
 ORIGIN OF METEORITE PARENT BODIES AND THE MOON  
 03/19/1997 - 11/30/2000 FY00: \$343,000 Total: \$1,351,200  
*Prin. Invest.:* D KEIL  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 4223 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4066**  
 OBSERVATION AND ANALYSIS OF JOVIAN AND SATURNIAN S  
 03/26/1997 - 03/14/2001 FY00: \$0 Total: \$32,000  
*Prin. Invest.:* D J THOLEN  
*Tech. Officer:* GSFC/W HUEBNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4257 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4067**  
 MAPPING HAZARDOUS VOLCANOES WITH RADARSAT AND OTHE  
 04/10/1997 - 02/28/2001 FY00: \$0 Total: \$60,000  
*Prin. Invest.:* P MOUGINIS-MARK  
*Tech. Officer:* GSFC/R H THOMAS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4395 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4068**  
 A GLOBAL ASSESSMENT OF ACTIVE VOLCANISM, VOLCANIC INPUTS TO  
 THE ATMOSPHERE FROM THE EARTH OBSERVING  
 05/06/1997 - 12/31/2000 FY00: \$0 Total: \$1,051,000  
*Prin. Invest.:* P J MOUGINIS-MARK  
*Tech. Officer:* GSFC/M BALTUCK  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4495 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4069**  
 DISTANT COMETS IN THE EARLY SOLAR SYSTEM  
 05/06/1997 - 03/31/2001 FY00: \$94,917 Total: \$332,370  
*Prin. Invest.:* D J MEECH  
*Tech. Officer:* GSFC/J BERGSTALH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4524 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4070**  
 OBSERVATIONS OF PLANET-CROSSING ASTEROIDS  
 05/28/1997 - 02/28/2001 FY00: \$0 Total: \$164,394  
*Prin. Invest.:* D J THOLEN  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4669 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4071**  
 THE SOLAR SYSTEM BEYOND NEPTUNE  
 06/17/1997 - 12/31/2000 FY00: \$48,000 Total: \$214,495  
*Prin. Invest.:* D C JEWITT  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4941 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4072**  
 OBSERVATIONAL INVESTIGATION OF THE SOLAR INTERIOR  
 06/23/1997 - 05/31/2001 FY00: \$415,840 Total: \$1,096,960  
*Prin. Invest.:* B J LABONTE  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 13 - PHYSICS

**NAG 5 5276 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4073**  
 PHASE 1 OF CORAL REEF ECOSYSTEM PHASE 1 OF CORAL REEF  
 ECOSYSTEM  
 04/17/2000 - 04/13/2005 FY00: \$291,000 Total: \$291,000  
*Prin. Invest.:* M ATKINSON  
*Tech. Officer:* GSFC/D L PIERCE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6336 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4074**  
 A COMPARATIVE STUDY OF X-RAY & LENSING MASS DETERM INATIONS  
 FOR THE MOST X-RAY LUMINOUS CLUSTERS IN  
 10/02/1997 - 03/14/2001 FY00: \$0 Total: \$17,800  
*Prin. Invest.:* H EBELING  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6340 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4075**  
 AIRCRAFT RADIATION & AEROSOL MSMTS. NEAR HAWAII: SATELLITE  
 VALIDATION AT THE MOBY BUOY & THE HOT SI  
 10/02/1997 - 09/30/2001 FY00: \$243,853 Total: \$689,520  
*Prin. Invest.:* J H PORTER  
*Tech. Officer:* GSFC/D O STARR  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6430 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4076**  
 ATMOSPHERIC DELAY CORRECTIONS FOR RADAR INTERFEROM ETRY:  
 DEVELOPMENT & TESTING OF A GPS-BASED APPROA  
 10/09/1997 - 04/30/2000 FY00: \$0 Total: \$120,000  
*Prin. Invest.:* M BEVIS  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6433 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4077**  
 A SYSTEM FOR ACQUISITION DISEMINATION OF EARTH SCI ENCE DATA VIA  
 THEINTERNET  
 10/17/1997 - 04/14/2000 FY00: \$0 Total: \$630,023  
*Prin. Invest.:* T NEILSEN  
*Tech. Officer:* GSFC/J DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6442 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4078**  
 UNDERSTANDING SEASONAL-TO-INTERANNUAL FLUCTUATIONS OF THE  
 NORTH PACIFIC SUBTROPICAL GYRE THROUGH MO  
 11/13/1997 - 09/30/2000 FY00: \$0 Total: \$127,220  
 Prin. Invest.: B QIU  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6561 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4079**  
 SPECTROSCOPIC OBSERVATIONS OF THE PLANETS  
 12/09/1997 - 03/31/2001 FY00: \$53,000 Total: \$159,000  
 Prin. Invest.: D OWEN  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6673 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4080**  
 CENTER FOR THE STUDY OF WATER VAPOR FIELDS AND THE IR RADI-  
 ATIVE EFFECTS OVER HAWAII-SATELLITE, AND  
 12/16/1997 - 10/31/1999 FY00: \$0 Total: \$310,000  
 Prin. Invest.: S SHARMA  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTALSCI, OTHER

**NAG 5 6753 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4081**  
 A MG II SPECTRAL ATLAS AND FLUX CATALOG FOR LATE- TYPE STARS IN  
 THEHYADES CLUSTER  
 01/12/1998 - 01/14/2000 FY00: \$0 Total: \$45,066  
 Prin. Invest.: T SIMON  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6759 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4082**  
 FACILITIES SUPPORT FOR PLANETARY GEOSCIENCES  
 12/24/1997 - 12/14/1999 FY00: -\$117 Total: \$89,883  
 Prin. Invest.: P LUCEY  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6829 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4083**  
 OUTER SOLAR SYSTEM NOMENCLATURE  
 01/15/1998 - 01/14/2001 FY00: \$4,750 Total: \$14,750  
 Prin. Invest.: T OWEN  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7038 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4084**  
 WEAK LENSING FROM SPACE - ATP  
 02/24/1998 - 03/31/2000 FY00: \$0 Total: \$165,315  
 Prin. Invest.: N KAISER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7056 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4085**  
 SUBMILLIMETER STUDIES OF COMETS  
 02/27/1998 - 02/28/2001 FY00: \$39,564 Total: \$123,564  
 Prin. Invest.: D JEWITT  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7087 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4086**  
 A MULTI-SENSOR STUDY OF CONVERGENT FRONTS IN THE N ORTH  
 PACIFIC  
 02/23/1998 - 06/30/1999 FY00: -\$17 Total: \$46,962  
 Prin. Invest.: P J FLAMENT  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7139 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4087**  
 REMOTE RAMAN ANALYSIS FOR PLANETARY LANDERS  
 03/04/1998 - 03/31/2001 FY00: \$270,324 Total: \$417,763  
 Prin. Invest.: S K SHARMA  
 Tech. Officer: GSFC/B CAMPBELL  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7156 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4088**  
 TRAVEL SUPPORT FOR GCET-LUCC OPEN SCIENCE CONFERENCE  
 04/15/1998 - 07/31/1999 FY00: \$0 Total: \$33,880  
 Prin. Invest.: D C JEWITT  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7171 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4089**  
 CONTROLS ON THE VARIABILITY OF PHYTOPLANKTON BIOMA SS AND  
 PRODUCTIVITY IN THE NORTH PACIFIC CENTRAL  
 04/03/1998 - 09/30/2000 FY00: \$0 Total: \$229,064  
 Prin. Invest.: R R BIDIGARE, NONE  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7383 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4090**  
 ARCHITECTURE AND IMPLEMENTATION CONSIDERATION OF A HIGH-  
 SPEED VIBERBI DECODER FOR REED-MULLER SUBC  
 05/12/1998 - 09/14/2000 FY00: \$50,000 Total: \$199,000  
 Prin. Invest.: G UEHARA  
 Tech. Officer: GSFC/W H MILLER  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 7485 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4091**  
 TO ESTABLISH SUPPORT FOR AN INTERNATIONAL PACIFIC RESEARCH  
 CENTER (IPRC) AT THE UNIV. SCHOOL OF OCEA  
 06/03/1998 - 04/30/2001 FY00: \$0 Total: \$1,000,000  
 Prin. Invest.: L MAGAARD  
 Tech. Officer: GSFC/R G KIRK  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 7513 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4092**  
 HYPERSPECTRAL REMOTE SENSING OF CORAL REEFS IN A TROPICAL  
 ESTUARY  
 07/28/1998 - 09/30/2001 FY00: \$101,543 Total: \$230,712  
 Prin. Invest.: M J ATKINSON  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7578 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4093**  
 FUNDING FOR POST-ERUPTION HAZARDS AT MT. PINATUBO , PHIL-  
 IPPINES(SENH98-0118)  
 08/04/1998 - 01/31/2001 FY00: \$183,000 Total: \$455,500  
 Prin. Invest.: P J MOUGINIS-MARK  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7730 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4094**  
 INTERACTIVE TEACHING USING LANDSAT 5 AND LANDSAT 7 DATA  
 09/29/1998 - 09/30/2000 FY00: \$30,200 Total: \$60,100  
*Prin. Invest.:* L P FLYNN  
*Tech. Officer:* GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7855 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4095**  
 THERMAL INFRARED MEASUREMENTS OF THE MOON AND MERCURY  
 12/07/1998 - 11/30/2000 FY00: \$57,550 Total: \$108,085  
*Prin. Invest.:* D G LUCEY  
*Tech. Officer:* GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7868 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4096**  
 CHEMISTRY AND MINERALOGY OF SURFACE UNITS ON EUROPA AND IO  
 01/13/1999 - 12/31/2000 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* D P FANALE  
*Tech. Officer:* GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7963 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4097**  
 THE FIFTH PLANETARY VOLCANOLOGY FIELD WORKSHOP  
 12/15/1998 - 10/31/2001 FY00: \$0 Total: \$46,000  
*Prin. Invest.:* S K ROWLAND  
*Tech. Officer:* GSFC/J GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 8002 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4098**  
 SOLAR LIMB SHAPE, RADIUS AND OSCILLATION STUDIES USING SOHO/MDI  
 01/12/1999 - 01/14/2001 FY00: \$120,766 Total: \$237,618  
*Prin. Invest.:* J R KUHN  
*Tech. Officer:* GSFC/J GURMAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8118 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4099**  
 A PRELIMINARY AEROSOL CLIMATOLOGY FOR THE PACIFIC BOUNDARY LAYER & FREE TROPOSPHERE  
 01/29/1999 - 01/31/2001 FY00: \$111,000 Total: \$222,000  
*Prin. Invest.:* A D CLARKE  
*Tech. Officer:* GSFC/M MISHCHENKO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8216 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4100**  
 FIP, FIT, OR MAD? ANALYSIS OF HIGH SIGNAL-TO-NOISE ASCA SPECTRA OF CORONAL STARS (ADP98)  
 02/08/1999 - 02/14/2000 FY00: \$0 Total: \$44,970  
*Prin. Invest.:* T SIMON  
*Tech. Officer:* GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8253 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4101**  
 FROM DETECTION TO COMPREHENSION: UNDERSTANDING THE PHYSICAL MECHANISMS DRIVING CLUSTER X-RAY EVOLUTION  
 02/19/1999 - 12/31/2000 FY00: \$137,000 Total: \$262,000  
*Prin. Invest.:* J HENRY  
*Tech. Officer:* GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8275 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4102**  
 NON-ICE CONSTITUENTS OF THE ICY GALILEAN SATELLITE SURFACES  
 03/25/1999 - 12/31/2000 FY00: \$95,000 Total: \$177,000  
*Prin. Invest.:* T B MCCORD  
*Tech. Officer:* GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8296 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4103**  
 A SURVEY FOR MASSIVE PLANETS BY DIRECT IMAGING WITH ADVANCED ADAPTIVE OPTICS  
 02/23/1999 - 02/28/2001 FY00: \$99,000 Total: \$234,000  
*Prin. Invest.:* D J RODDIER  
*Tech. Officer:* HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8300 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4104**  
 RADIATIVE BALANCE & BEHAVIOR OF THE SEASONAL MARS POLAR CAPS  
 03/05/1999 - 03/14/2001 FY00: \$57,000 Total: \$117,000  
*Prin. Invest.:* T MCCORD  
*Tech. Officer:* HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8330 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4105**  
 SOLAR-C: SCATTER-FREE OBSERVATORY FOR LIMB ACTIVE REGIONS AND CORONAE  
 04/30/1999 - 04/30/2001 FY00: \$192,303 Total: \$307,618  
*Prin. Invest.:* J R KUHN  
*Tech. Officer:* GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8393 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4106**  
 MULTIPHASE GAS DYNAMICS IN INTERACTING GALAXIES (ATP 98)  
 03/05/1999 - 03/14/2000 FY00: -\$1,880 Total: \$19,505  
*Prin. Invest.:* J E BARNES  
*Tech. Officer:* GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8414 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4107**  
 ERROR CONTROL CODING TECHNIQUES FOR SPACE AND SATELLITE COMMUNICATIONS  
 03/26/1999 - 02/29/2000 FY00: -\$637 Total: \$49,163  
*Prin. Invest.:* D FOSSORIER  
*Tech. Officer:* GSFC/W H MILLER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 8421 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4108**  
 SCIENTIFIC RESEARCH FOR DESIGN REFERENCE MISSION FOR NEXT GENERATION SPACE TELESCOPE  
 04/02/1999 - 04/14/2001 FY00: \$10,000 Total: \$20,000  
*Prin. Invest.:* D N HALL  
*Tech. Officer:* GSFC/E SMITH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8593 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4109**  
 1998 BIOASTRONOMY MEETING  
 08/04/1999 - 05/31/2001 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* T C OWEN  
*Tech. Officer:* GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY



**NAG 5 8713 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4110**  
 MINERALOGY AND ISOTOPE CHEMISTRY OF CA-AL-RICH INCLUSIONS,  
 CHONDRULES & MATRIX IN THE CV CHONDRITE  
 08/04/1999 - 07/31/2001 FY00: \$22,500 Total: \$46,500  
 Prin. Invest.: K KEIL  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8745 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4111**  
 LOCAL TSUNAMIS IN HAWAII: HAZARD ASSESSMENT & EMERGENCY  
 RESPONSE  
 08/24/1999 - 02/28/2001 FY00: \$0 Total: \$100,000  
 Prin. Invest.: G J FRYER  
 Tech. Officer: GSFC/E PAYLOR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8748 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4112**  
 A REAL-TIME SIMULATION PACKAGE FOR STORM SURGE AND WAVE  
 RUNUP PACIFIC  
 08/25/1999 - 08/30/2001 FY00: \$0 Total: \$400,000  
 Prin. Invest.: K F CHEUNG  
 Tech. Officer: GSFC/E PAYLOR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8751 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4113**  
 DEVELOPMENT OF A UV/VISIBLE-OPTIMIZED CCD FOR WFC3 ON HST  
 09/08/1999 - 09/14/2001 FY00: \$0 Total: \$93,500  
 Prin. Invest.: G LUPPINO  
 Tech. Officer: GSFC/E CHENG  
 CASE Category: 13 - PHYSICS

**NAG 5 8757 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4114**  
 IMAGING, GEOCODING AND ENVIRONMENTAL MONITORING IN HAWAII  
 AND THE WEST PACIFIC  
 08/24/1999 - 02/28/2001 FY00: \$0 Total: \$400,000  
 Prin. Invest.: M BEVIS  
 Tech. Officer: GSFC/E PAYLOR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8863 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4115**  
 LABORATORY INVESTIGATIONS OF VOLATILE TRAPPING IN COMETS  
 10/20/1999 - 09/30/2000 FY00: \$80,000 Total: \$80,000  
 Prin. Invest.: T C OWEN  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8870 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4116**  
 VOLATILE EVOLUTION  
 01/10/2000 - 12/31/2000 FY00: \$72,347 Total: \$72,347  
 Prin. Invest.: F P FANALE  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8903 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4117**  
 REMOTE SENSING AND GEOLOGIC STUDIES OF PLANETARY CRUSTS  
 12/28/1999 - 12/31/2000 FY00: \$66,880 Total: \$66,880  
 Prin. Invest.: B HAWKE  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 8920 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4118**  
 A GLOBAL ASSESSMENT OF ACTIVE VOLCANISM FROM THE EARTH  
 OBSERVING SYSTEM  
 01/24/2000 - 12/31/2000 FY00: \$405,000 Total: \$405,000  
 Prin. Invest.: P J MOUGINIS-MARK  
 Tech. Officer: GSFC/E D PAYLOR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8921 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4119**  
 THE FIFTH PLANETARY VOLCANOLOGY FIELD WORKSHOP  
 01/06/2000 - 12/31/2000 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: S K ROWLAND  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8979 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4120**  
 FINDING THE ONSET OF CONVECTION IN MAIN SEQUENCE STARS - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$68,700 Total: \$68,700  
 Prin. Invest.: T SIMON  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8983 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4121**  
 PROPERTIES OF ICE ON THE SURFACE OF EUROPA AND THE OTHER ICY  
 GALILEAN SATELLITES  
 01/24/2000 - 01/31/2001 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: G HANSEN  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8989 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4122**  
 OBSERVATIONS OF THE PLUTO-CHARON SYSTEM  
 01/27/2000 - 03/31/2001 FY00: \$10,360 Total: \$10,360  
 Prin. Invest.: D J THOLEN  
 Tech. Officer: GSFC/T H MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8991 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4123**  
 ASTEROID PROCESSING ON EROS  
 01/24/2000 - 01/31/2001 FY00: \$65,000 Total: \$65,000  
 Prin. Invest.: P G LUCEY  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9036 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4124**  
 VALIDATION AND ANALYSIS OF SRTM AND VCL DATA OVER TROPICAL  
 VOLCANOES.  
 02/10/2000 - 02/14/2001 FY00: \$39,000 Total: \$39,000  
 Prin. Invest.: P J MOUGINIS-MARK  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9042 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4125**  
 ANALYSIS OF HIPPARCHOS MARGINAL PARALLAXES - ADP 99  
 02/22/2000 - 02/28/2001 FY00: \$45,059 Total: \$45,059  
 Prin. Invest.: W D HEACOX  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9166 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4126**  
 ORIGIN & EVOLUTION OF STRUCTURE IN THE UNIVERSE DETERMINED  
 FROM THE X-RAY EVOLUTION OF GALAXY  
 03/08/2000 - 03/15/2001 FY00: \$67,564 Total: \$67,564  
*Prin. Invest.:* J HENRY  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9190 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4127**  
 SHARING DISCOVERIES IN PLANETARY GEOSCIENCE ON THE WORLD  
 WIDE WEB AND CD-ROM  
 03/07/2000 - 03/14/2001 FY00: \$65,000 Total: \$65,000  
*Prin. Invest.:* G TAYLOR  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9238 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4128**  
 A CALIBRATION OF THE CLUSTER FLUX MEASUREMENTS IN THE ROSAT  
 ALL-SKY SURVEY - ADP 99  
 03/09/2000 - 03/14/2001 FY00: \$30,321 Total: \$30,321  
*Prin. Invest.:* H EBELING  
*Tech. Officer:* GSFC/R OLIVERSON  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9252 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4129**  
 REAL-TIME LABORATORY FOR REMOTE SENSING  
 03/10/2000 - 02/28/2001 FY00: \$248,367 Total: \$248,367  
*Prin. Invest.:* T NIELSEN  
*Tech. Officer:* HQ/J DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9354 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4130**  
 FULLERENES: A NEW CARRIER-PHASE FOR NOBLE GASES IN METEOR-  
 ITES  
 04/03/2000 - 03/31/2001 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* L BECKER  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9413 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4131**  
 TRACKING ERUPTIONS & FIRES WITHIN THE RING OF FIRE  
 04/07/2000 - 04/30/2001 FY00: \$114,667 Total: \$114,667  
*Prin. Invest.:* L FLYNN  
*Tech. Officer:* GSFC/J DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9511 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4132**  
 INTERSTELLAR ORGANIC MOLECULES AND THE ORIGIN OF LIFE: THE  
 ROLE OF EXOGENOUS DELIVERY  
 05/03/2000 - 04/30/2001 FY00: \$84,780 Total: \$84,780  
*Prin. Invest.:* L BECKER *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9576 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4133**  
 THE DIVERSITY OF MARTIAN VOLCANIC FEATURES AS SEEN IN MOC  
 IMAGES AND MOLATOPOGRAPHIC DATA  
 05/17/2000 - 04/30/2001 FY00: \$57,700 Total: \$57,700  
*Prin. Invest.:* P MOUGINIS-MARK  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9580 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4134**  
 A VOLCANIC PLUME DISPERSION MONITORING AND PREDICT ION  
 CAPABILITY  
 05/09/2000 - 09/30/2001 FY00: \$213,210 Total: \$213,210  
*Prin. Invest.:* S BUSINGER  
*Tech. Officer:* GSFC/E PAYLOR  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9757 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4135**  
 CONTROLS ON THE VARIABILITY OF PHYTOPLANKTON BIO- MASS &  
 PRODUCTIVITY IN THE NORTHERN PACIFIC CENTRA  
 06/23/2000 - 06/30/2001 FY00: \$75,641 Total: \$75,641  
*Prin. Invest.:* R R BIDIGARE  
*Tech. Officer:* GSFC/J MARRA  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9765 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4136**  
 GEOCHEMICAL STUDIES OF THE LUNAR CRUST  
 07/03/2000 - 06/30/2001 FY00: \$24,000 Total: \$24,000  
*Prin. Invest.:* B HAWKE  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9896 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4137**  
 MAPPING THE STELLAR X-RAY EMISSION BEYOND 1 GYR IN SPACE AND  
 TIME  
 09/06/2000 - 09/14/2001 FY00: \$7,000 Total: \$7,000  
*Prin. Invest.:* T SIMON  
*Tech. Officer:* GSFC/R F MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9921 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4138**  
 X-RAY EMISSION FROM BROWN DWARFS: A SEQUENCE OF TEMPERA-  
 TURES AND AGES?  
 09/05/2000 - 09/14/2001 FY00: \$7,800 Total: \$7,800  
*Prin. Invest.:* W BRANDNER  
*Tech. Officer:* GSFC/R F MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9992 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4139**  
 SEARCH FOR X-RAY EMISSION IN THE NEAREST KNOWN BROWN DWARF  
 09/20/2000 - 08/31/2001 FY00: \$16,000 Total: \$16,000  
*Prin. Invest.:* E MARTIN  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9994 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4140**  
 RXJ1821+6828: TEMPERATURE DISTRIBUTION AND METALLICITY FOR A  
 Z=0.81 CLUSTER  
 09/14/2000 - 08/31/2001 FY00: \$22,500 Total: \$22,500  
*Prin. Invest.:* I M GIOIA  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10025 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4141**  
 HARD X-RAYS FROM A COMPLETE SAMPLE OF THE BRIGHTEST ULTRALU-  
 MINOUS INFRARED GALAXIES  
 09/27/2000 - 09/30/2001 FY00: \$32,400 Total: \$32,400  
*Prin. Invest.:* D B SANDERS  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 10045 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4142**  
 DATA-INTENSIVE RESEARCH & MODEL DEVELOPMENT AT THE INTERNATIONAL PACIFIC RESEARCH CENTER  
 09/28/2000 - 09/30/2001 FY00: \$250,000 Total: \$250,000  
 Prin. Invest.: J MCCREARY  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 2 98077 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4143**  
 DEVELOPMENT OF ADVANCED NEAR INFRARED FOCAL PLANE TECHNOLOGY  
 08/04/1998 - 08/31/2001 FY00: \$352,000 Total: \$992,000  
 Prin. Invest.: D N HALL  
 Tech. Officer: ARC/K W HODAPP  
 CASE Category: 11 - ASTRONOMY

**NAS 5 32354 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4144**  
 LASER RANGING OPERATIONS & MAINTENANCE  
 03/03/1994 - 05/15/1999 FY00: \$0 Total: \$3,440,949  
 Prin. Invest.: D HALL  
 Tech. Officer: GSFC/J MCGARRY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 5 97136 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4145**  
 MEASUREMENTS OF AEROSOL, OCEAN & SKY PROPERTIES AT THE HOT SITE IN THE CENTRAL PACIFIC  
 09/29/1997 - 03/28/2001 FY00: \$0 Total: \$396,097  
 Prin. Invest.: J PORTER  
 Tech. Officer: GSFC/C MCLAIN  
 CASE Category: 33 - OCEANOGRAPHY

**NAS 5 99180 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4146**  
 LASER RANGING OPERATION, REPAIR & MAINTENANCE OF LURE OBSERVATORY FACILITY, MAUI, HI.  
 08/19/1999 - 08/18/2004 FY00: \$390,000 Total: \$660,000  
 Prin. Invest.: D O'GARA  
 Tech. Officer: GSFC/J MCGARRY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NASW 5062 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4147**  
 OPERATION AND MAINTENANCE OF THE INFRARED TELESCOPE FACILITY  
 01/31/1996 - 12/31/2000 FY00: \$2,940,000 Total: \$14,916,140  
 Prin. Invest.: D N HALL, R JOSEPH  
 Tech. Officer: HQ/E BARKER  
 CASE Category: 11 - ASTRONOMY

**NCC 1 315 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4148**  
 SIZE RESOLVED AEROSOL NUCLEI AND PHYSICO-CHEMISTRY FOR PEM-TROPICS B ABOARD P-3B, REF NRA-97-MTPE-13  
 08/17/1998 - 08/31/2001 FY00: \$114,930 Total: \$346,930  
 Prin. Invest.: A D CLARKE, V KAPUSTIN  
 Tech. Officer: LARC/J M HOELL, LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 416 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4149**  
 AEROSOL PHYSICO-CHEMISTRY: P-3B AIRCRAFT MEASUREMENTS FOR TRACE-P. NRA00-OES-01.  
 09/25/2000 - 09/30/2003 FY00: \$109,577 Total: \$109,577  
 Prin. Invest.: A D CLARKE  
 Tech. Officer: LARC/J L RAPER, SR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5194 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4150**  
 PHOTON-DOMINATED CIRCUMSTELLAR GAS  
 11/13/1996 - 12/31/1998 FY00: -\$9,405 Total: \$2,595  
 Prin. Invest.: J L HORA  
 Tech. Officer: ARC/D HOLLENBACH  
 CASE Category: 11 - ASTRONOMY

**NCC 3 696 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4151**  
 FLAME DESIGN - A NOVEL APPROACH TO CLEAN, EFFICIENT DIFFUSION FLAMES  
 03/25/1999 - 01/13/2003 FY00: \$19,351 Total: \$30,602  
 Prin. Invest.: B CHAO  
 Tech. Officer: GRC/D L URBAN  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 5 373 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4152**  
 PARTICIPATION IN THE COMPOSITE INFRARED SPECTROMETER (CIRS) PROJECT AS CO-INVESTIGATOR  
 01/12/1999 - 01/14/2001 FY00: \$10,000 Total: \$18,000  
 Prin. Invest.: T C OWEN  
 Tech. Officer: GSFC/G L BJORAKER  
 CASE Category: 11 - ASTRONOMY

**NCC 5 461 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4153**  
 QUANTITATIVE ANALYSIS OF HOT SPOTS USING EO-1 & LAND SAT 7.  
 02/28/2000 - 12/31/2000 FY00: \$24,365 Total: \$24,365  
 Prin. Invest.: L P FLYNN  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 40020 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4154**  
 NGT-40020/UNIV OF HAWAII/NAT'L SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 03/07/1990 - 01/31/2000 FY00: -\$7,399 Total: \$2,146,601  
 Prin. Invest.: P MOUGINIS-MARK  
 Tech. Officer: HQ/E T SCHWARTZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30179 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4155**  
 PHYSICAL MODELING OF MULTI-SPECTRAL DATA TO CHARACTERIZE DEPTH & BOTTOM-TYPE IN NEARSHORE MARINE CA  
 08/12/1999 - 08/31/2001 FY00: \$0 Total: \$22,000  
 Prin. Invest.: C FLETCHER  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30207 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4156**  
 SOURCES AND ISOTOPIC COMPOSITIONS OF NITROUS OXIDE FROM THE SUBTROPIC NORTH PACIFIC & EASTERN TROPIC  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: B POPP, NONE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40021 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4157**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 02/13/1997 - 01/31/2001 FY00: \$444,278 Total: \$1,598,778  
 Prin. Invest.: D TAYLOR  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50017 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4158**  
 THE LINK BETWEEN INTERACTIONS, INFRARED EMISSION A OF GALAXIES:  
 A DETAILED STUDY OF A COMPLETE SAMP  
 07/14/1997 - 06/30/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: J E BARMES  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTINTERDISCIPL, OTHER

**NGT 5 50175 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4159**  
 A COMPLETE SAMPLE OF X-RAY SELECTED GALAXY CLUSTER S FROM  
 THE ROSAT NORTHECLIPTIC POLE SURVEY  
 05/22/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: J HENRY/MULLIS  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50319 UNIVERSITY OF HAWAII AT MANOA - HONOLULU 4160**  
 THE CHANGING FACE OF A NEW VOLCANIC LANDSCAPE SYST EM: RATES,  
 CAUSES & HAZARDS/STUDENT: JOHN BAILEY  
 08/16/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: S SELF  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4227 UNIVERSITY OF HAWAII SYSTEM 4161**  
 HIGH ANGULAR RESOLUTION OBSERVATIONS OF PROTOPLANE ADAPTIVE  
 OPTICS  
 03/24/1997 - 04/30/1999 FY00: -\$328 Total: \$54,672  
 Prin. Invest.: D J RODDIER  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4631 UNIVERSITY OF HAWAII SYSTEM 4162**  
 DK UMA, A STAR ON THE ASCENT  
 05/21/1997 - 05/31/1999 FY00: -\$11 Total: \$17,469  
 Prin. Invest.: T SIMON  
 Tech. Officer: GSFC/RJ OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4828 UNIVERSITY OF HAWAII SYSTEM 4163**  
 X-RAY TEMPERATURES FOR A COMPLETE SAMPLE OF DISTAN  
 06/20/1997 - 06/30/2000 FY00: \$0 Total: \$18,900  
 Prin. Invest.: J HENRY  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6168 UNIVERSITY OF HAWAII SYSTEM 4164**  
 IS THERE ONLY ONE STELLAR CORONAL ACTIVITY-AGE REL  
 08/01/1997 - 07/31/1999 FY00: -\$37 Total: \$4,563  
 Prin. Invest.: T SIMON  
 Tech. Officer: GSFC/R PETRE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6799 UNIV OF HAWAII WINDWARD COMMUNITY COLL 4165**  
 ESTABLISHING A RS/GIS EDUCATIONAL TRAINING AND ENVIRONMENTAL  
 MONITORING CENTER IN HAWAII  
 02/27/1998 - 02/29/2000 FY00: \$0 Total: \$93,014  
 Prin. Invest.: J E CIOTTI  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTALSCI, OTHER

## IDAHO

**NAG 5 7537 BOISE STATE UNIVERSITY 4166**  
 INVESTIGATION OF PHYSICAL PROCESS DYNAMICS DURING COLD  
 SEASON FLOODING.  
 06/18/1998 - 06/30/2001 FY00: \$0 Total: \$109,909  
 Prin. Invest.: P DAWSON  
 Tech. Officer: GSFC/E ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2138 IDAHO STATE UNIVERSITY 4167**  
 ELECTRO-OPTIC HOLOGRAPHY  
 01/27/1999 - 11/30/2000 FY00: \$1 Total: \$35,778  
 Prin. Invest.: J D BLOTTER  
 Tech. Officer: LARC/G A FLEMING, LARC/R W WLEZIEN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 5 4747 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4168**  
 EARTH SYSTEM FIELD RESEARCH EXPERIENCE FOR UNDERGR  
 06/18/1997 - 05/31/2000 FY00: \$0 Total: \$229,144  
 Prin. Invest.: M MILLER  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9052 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4169**  
 NOVA ONLINE ESS  
 02/14/2000 - 02/14/2001 FY00: \$74,999 Total: \$74,999  
 Prin. Invest.: M R ODELL  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9846 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4170**  
 STUDY OF LAND-ATMOSPHERE INTERACTIONS USING SATELLITE DATA  
 ASSIMILATION  
 08/01/2000 - 07/31/2002 FY00: \$19,084 Total: \$19,084  
 Prin. Invest.: R J QUALLS  
 Tech. Officer: GSFC/P R HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9876 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4171**  
 LAND SURFACE MODELING & DATA ASSIMILATION WITH IN SITU & REMOTE  
 SENSING DATA FROM CASES-97  
 08/22/2000 - 07/14/2001 FY00: \$75,589 Total: \$75,589  
 Prin. Invest.: R QUALLS Prin. Invest.: NONE  
 Tech. Officer: GSFC/P HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 862 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4172**  
 DEVELOPMENT OF SENSORY RECEPTORS IN SKELETAL MUSCLE  
 06/21/1994 - 04/30/1999 FY00: -\$6,712 Total: \$186,587  
 Prin. Invest.: M E DESANTIS  
 Tech. Officer: ARC/D A REIS-BUBENHEIM, ARC/C M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 914 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4173**  
 SPARK: STUDENT PROGRAM FOR AERONAUTICS RESOURCES FOR  
 KNOWLEDGE  
 07/26/1995 - 06/14/1999 FY00: -\$2,887 Total: \$311,426  
 Prin. Invest.: D H ATKINSON  
 Tech. Officer: ARC/M J LEON, ARC/W C LIKENS  
 CASE Category: 99 - MULTINTERDISCIPL, OTHER

**NCC 2 1174 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4174**  
 ANALYZING THE IMPACT OF RISK AND TASK ANALYSIS AND HUMAN  
 FACTORS PRICIPLES ON THE OUTCOME OF ....  
 04/24/2000 - 04/14/2001 FY00: \$124,803 Total: \$124,803  
 Prin. Invest.: L T OSTROM  
 Tech. Officer: ARC/B G KANKE  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 5 395 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4175**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 - 05/31/2001 FY00: \$271,798 Total: \$496,798  
 Prin. Invest.: R GILL  
 Tech. Officer: HQ/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40056 UNIVERSITY OF IDAHO - MOSCOW, IDAHO 4176**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 02/12/1997 - 02/28/2001 FY00: \$262,584 Total: \$1,231,834  
 Prin. Invest.: J TEASDALE  
 Tech. Officer: GSFC/D E DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## ILLINOIS

**NAG 1 2263 BRADLEY UNIVERSITY 4177**  
 EFFECTS OF SELECTED TASK PERFORMANCE CRITERIA AT INITIATING  
 ADAPTIVE TASK REALLOCATIONS  
 01/24/2000 - 11/01/2000 FY00: \$25,754 Total: \$25,754  
 Prin. Invest.: D A MONTGOMERY  
 Tech. Officer: LARC/L J PRINZEL, LARC/A T POPE  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 5 9734 CHICAGO STATE UNIVERSITY 4178**  
 THUNDERSTORM OBSERVATIONS AND RESEARCH  
 06/27/2000 - 06/30/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: R SOLAKIEWICZ  
 Tech. Officer: GSFC/C PERSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 272 DEPAUL UNIVERSITY 4179**  
 OSS EDUCATION AND OUTREACH BROKER/FACILITATOR PROG RAM  
 02/24/1998 - 03/14/2001 FY00: \$230,000 Total: \$620,000  
 Prin. Invest.: C C NARASIMHAN  
 Tech. Officer: GSFC/J ROSENDHAL  
 CASE Category: 11 - ASTRONOMY

**NAG 1 2180 ILLINOIS INSTITUTE OF TECHNOLOGY 4180**  
 FREE-STREAM TURBULENCE LEVEL MEASUREMENT BY LEADING-EDGE  
 STABILITY METHODS  
 04/06/1999 - 09/30/1999 FY00: \$0 Total: \$12,174  
 Prin. Invest.: T C CORKE  
 Tech. Officer: LARC/R W WIEZIEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1723 ILLINOIS INSTITUTE OF TECHNOLOGY 4181**  
 A WARNING SYSTEM FOR EARLY DETECTION OF COLLAPSE OF STRUC-  
 TURES DURING FIRE  
 06/05/2000 - 06/04/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: M OZBAY  
 Tech. Officer: GRC/S GARG  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 3 798 ILLINOIS INSTITUTE OF TECHNOLOGY 4182**  
 MODELING NONLINEAR ACOUSTIC STANDING WAVES IN RESO NATORS:  
 THEORY AND EXPERIMENT  
 05/16/2000 - 04/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D RAMAN  
 Tech. Officer: GRC/B M STEINETZ  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 5 9584 ILLINOIS STATE UNIVERSITY 4183**  
 DETERMINATION OF THE MAGNETOTAIL CURRENT SHEET STR UCTURE  
 USING NONLINEARDYNAMICS MODELING AND GEOTA  
 05/25/2000 - 05/31/2001 FY00: \$49,900 Total: \$49,900  
 Prin. Invest.: D HOLLAND  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1262 ILLINOIS STATE UNIVERSITY 4184**  
 RESEARCH JOVE  
 01/17/1997 - 08/31/2000 FY00: \$0 Total: \$51,000  
 Prin. Invest.: D HOLLAND  
 Tech. Officer: MSFC/J F DOWNDY, MSFC/J R PRUITT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2269 KNOX COLLEGE 4185**  
 INVESTIGATION OF CHEMICALLY TREATED TEST-STRIPS FOR OZONE  
 MEASUREMENT  
 02/10/2000 - 09/30/2000 FY00: \$12,027 Total: \$12,027  
 Prin. Invest.: L C BUSH  
 Tech. Officer: LARC/J FISHMAN, LARC/R J DE YOUNG  
 CASE Category: 12 - CHEMISTRY

**NAG 1 1813 NORTHWESTERN UNIVERSITY 4186**  
 AN ULTRASONICS TECHNIQUE TO DETERMINE THE RESIDUAL STRENGTH  
 OF ADHESIVE BONDS  
 02/28/1996 - 08/31/1999 FY00: \$0 Total: \$150,000  
 Prin. Invest.: J D ACHENBACH, J S STECKENRIDER  
 Tech. Officer: LARC/W P WINFREE, LARC/W T YOST  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 1 2313 NORTHWESTERN UNIVERSITY 4187**  
 MECHANICS OF NANOTUBES & NANOTUBE/POLYMER COMPOSITES  
 07/18/2000 - 07/19/2003 FY00: \$53,000 Total: \$53,000  
 Prin. Invest.: R S RUOFF  
 Tech. Officer: LARC/T S GATES  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 1604 NORTHWESTERN UNIVERSITY 4188**  
 STRUCTURE & DYNAMICS OF DIFFUSION FLAMES IN MICROGRAVITY  
 05/23/1994 - 05/22/1999 FY00: \$0 Total: \$373,600  
 Prin. Invest.: M MATALON  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1737 NORTHWESTERN UNIVERSITY 4189**  
 THEORY OF SOLIDIFICATION  
 04/18/1995 - 05/31/2000 FY00: \$0 Total: \$754,000  
 Prin. Invest.: S H DAVIS  
 Tech. Officer: GRC/A CHART  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 1823 NORTHWESTERN UNIVERSITY 4190**  
 COARSENING IN SOLID-LIQUID MIXTURES  
 04/01/1996 - 05/31/2001 FY00: \$69,494 Total: \$837,375  
 Prin. Invest.: P W VOORHEES  
 Tech. Officer: GRC/T K GLASGOW  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 1855 NORTHWESTERN UNIVERSITY 4191**  
 CONTROLL OF FLOWING LIQUID FILMS BY ELECTROSTATIC FIELDS IN SPACE  
 04/26/1996 - 11/30/2000 FY00: \$50,000 Total: \$480,000  
 Prin. Invest.: S G BANKOFF, R A SCHLUTER, M JMIKSIS  
 Tech. Officer: GRC/R A WILKINSON  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 1863 NORTHWESTERN UNIVERSITY 4192**  
 COMBUSTION OF ROTATING SPHERICAL PREMIXED AND DIFFUSION FLAMES IN MICROGRAVITY  
 07/02/1996 - 12/31/2000 FY00: -\$42,958 Total: \$211,968  
 Prin. Invest.: S H SOHRAB  
 Tech. Officer: GRC/N D PILTCH  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1892 NORTHWESTERN UNIVERSITY 4193**  
 THE MICROMECHANICS OF THE MOVING CONTACT LINE  
 06/01/1996 - 05/31/2001 FY00: \$33,000 Total: \$320,000  
 Prin. Invest.: S LICHTER  
 Tech. Officer: GRC/M WEISLOGEL  
 CASE Category: 13 - PHYSICS

**NAG 3 1932 NORTHWESTERN UNIVERSITY 4194**  
 NONLINEAR RELAXATION AND FLUCTUATIONS IN A NON-EQUILIBRIUM NEAR CRITICAL LIQ WITH A TEMP GRADIENT  
 07/29/1996 - 02/14/2001 FY00: \$54,000 Total: \$244,999  
 Prin. Invest.: A Z PATASHINSKI, G A ZIMMERLI  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2113 NORTHWESTERN UNIVERSITY 4195**  
 COMPLEX DYNAMICS IN MARANGONI CONVECTION WITH ROTATION  
 03/04/1998 - 01/03/2002 FY00: \$100,000 Total: \$275,000  
 Prin. Invest.: H RIECKE  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2209 NORTHWESTERN UNIVERSITY 4196**  
 FILTRATION COMBUSTION FOR MICROGRAVITY APPLICATIONS: (1) SMOLDERING (2) COMBUSTION SYNTHESIS OF A  
 11/17/1998 - 11/11/2002 FY00: \$126,000 Total: \$264,000  
 Prin. Invest.: B J MATKOWSKY  
 Tech. Officer: GRC/S A GOGOKLU  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2231 NORTHWESTERN UNIVERSITY 4197**  
 OPTIMIZATION OF AlN AND AlGAN MATERIAL FOR ELECTRON EMISSIVE DEVICES  
 02/25/1999 - 01/24/2000 FY00: \$0 Total: \$15,000  
 Prin. Invest.: D NEWMAN  
 Tech. Officer: GRC/I L KRAINSKY  
 CASE Category: 13 - PHYSICS

**NAG 3 2364 NORTHWESTERN UNIVERSITY 4198**  
 COMPETING INSTABILITIES AND THE SPATIO-TEMPORAL DYNAMICS OF INTERFACIAL WAVE PATTERNS  
 03/20/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: M SILBER  
 Tech. Officer: GRC/C E NIEDERHAUS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2369 NORTHWESTERN UNIVERSITY 4199**  
 INTERFACIAL DYNAMICS INTERFACIAL DYNAMICS  
 04/03/2000 - 11/30/2003 FY00: \$64,132 Total: \$64,132  
 Prin. Invest.: D H DAVIS  
 Tech. Officer: GRC/H C DEGROH  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2474 NORTHWESTERN UNIVERSITY 4200**  
 COARSENING IN SOLID-LIQUID MIXTURES-2 (CSLM-2) COARSENING IN SOLID-LIQUID MIXTURES-2 (CSLM-2)  
 07/24/2000 - 11/30/2005 FY00: \$51,396 Total: \$51,396  
 Prin. Invest.: P W VOORHEES  
 Tech. Officer: GRC/W B DUVAL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2485 NORTHWESTERN UNIVERSITY 4201**  
 ATOMIC-SCALE STUDIES OF EVOLVING MICROSTRUCTURES OF Ni-Cr-BASED SUPERALLOYS: A GRADUATE TRAINING GROUP  
 08/22/2000 - 08/31/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: D N SEIDMAN  
 Tech. Officer: GRC/R D NOEBE  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 5 2432 NORTHWESTERN UNIVERSITY 4202**  
 SMALL SCALE SUBSTRUCTURE WITHIN THE COMA CLUSTER OF GALAXIES  
 11/12/1993 - 11/30/2000 FY00: \$0 Total: \$408,600  
 Prin. Invest.: M ULMER  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4354 NORTHWESTERN UNIVERSITY 4203**  
 MARINER 10 COLOR AND ALBEDO OF MERCURY AND THE MOON  
 04/24/1997 - 03/31/2001 FY00: \$43,000 Total: \$181,679  
 Prin. Invest.: D S ROBINSON  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 5094 NORTHWESTERN UNIVERSITY 4204**  
 THE DEVELOPMENT OF A FOCUSING SYSTEM FOR 40-100 KEV X-RAYS  
 11/22/1996 - 03/11/2001 FY00: \$147,000 Total: \$497,000  
 Prin. Invest.: M P ULMER  
 Tech. Officer: GSFC/L W GURKIN  
 CASE Category: 13 - PHYSICS

**NAG 5 6413 NORTHWESTERN UNIVERSITY 4205**  
 THE HOT INTERSTELLAR MEDIUM (LTSA - NEW)  
 10/24/1997 - 10/31/1999 FY00: -\$2,886 Total: \$183,114  
 Prin. Invest.: Q WANG  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6824 NORTHWESTERN UNIVERSITY 4206**  
 CLEMENTINE GLOBAL MOSAIC PROCESSING SUPPORT  
 01/12/1998 - 12/31/1999 FY00: \$0 Total: \$41,695  
 Prin. Invest.: M ROBINSON  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7011 NORTHWESTERN UNIVERSITY 4207**  
 THEORETICAL STUDIES OF X-RAY BURSTS IN ACCRETING NEUTRON  
 STARS - ATP  
 02/18/1998 - 02/14/2001 FY00: \$69,710 Total: \$211,710  
 Prin. Invest.: R E TAAM  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7280 NORTHWESTERN UNIVERSITY 4208**  
 XTE PROPOSAL - A SEARCH FOR PULSED X-RAY EMISSION FROM PSR  
 B2334+61  
 04/15/1998 - 05/31/2000 FY00: \$0 Total: \$8,500  
 Prin. Invest.: M P ULMER  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7889 NORTHWESTERN UNIVERSITY 4209**  
 A SEARCH FOR GAMMA-RAY EMISSION FROM KNOWN RADIO PULSARS  
 12/02/1998 - 12/31/1999 FY00: \$0 Total: \$10,000  
 Prin. Invest.: M P ULMER  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8294 NORTHWESTERN UNIVERSITY 4210**  
 LESSER THARSIS VOLCANOES: STYLES OF ERUPTION AND RELATIONS  
 TO THARSIS FLOOD VOLCANISM  
 02/23/1999 - 03/31/2001 FY00: \$43,000 Total: \$77,200  
 Prin. Invest.: M S ROBINSON  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9129 NORTHWESTERN UNIVERSITY 4211**  
 X-RAY SOURCE POPULATION IN NEARBY DISK GALAXIES- ADP 99  
 02/29/2000 - 04/14/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: Q WANG  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9188 NORTHWESTERN UNIVERSITY 4212**  
 A MULTI-WAVELENGTH STUDY OF THE INNER 50 PC-REGION AT THE  
 GALACTIC GALACTIC CENTER (LTS99)  
 03/07/2000 - 03/14/2001 FY00: \$28,518 Total: \$28,518  
 Prin. Invest.: F YUSEF-ZADEH  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9272 NORTHWESTERN UNIVERSITY 4213**  
 SMALL-SCALE STRUCTURE IN THE DIFFUSE INTERSTELLAR MEDIUM  
 (LTSA 99)  
 03/16/2000 - 03/14/2001 FY00: \$89,712 Total: \$89,712  
 Prin. Invest.: D MEYER  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1660 NORTHWESTERN UNIVERSITY 4214**  
 EVOLUTION OF DENDRITE MORPHOLOGY DURING ISOTHERMAL COARS-  
 ENING  
 04/24/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: J ALKEMPER  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 9 1053 NORTHWESTERN UNIVERSITY 4215**  
 RESEARCH FOR ROTATION MEMBRANE WATER PURIFICATION  
 12/10/1998 - 12/14/2001 FY00: \$163,883 Total: \$351,336  
 Prin. Invest.: R M LUEPTOW  
 Tech. Officer: JSC/N PACKMAN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 1079 NORTHWESTERN UNIVERSITY 4216**  
 DNA MICROCHIP BASED MICROBIAL MONITORING  
 02/26/1999 - 02/28/2001 FY00: -\$83,754 Total: \$133,119  
 Prin. Invest.: D A STAHL  
 Tech. Officer: JPL/D L JAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 98153 NORTHWESTERN UNIVERSITY 4217**  
 CONSTELLATION X-RAY MISSION  
 06/22/1998 - 12/15/2001 FY00: \$0 Total: \$120,047  
 Prin. Invest.: M P ULMER  
 Tech. Officer: GSFC/J GRADY, GSFC/R MAUK  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 1 271 NORTHWESTERN UNIVERSITY 4218**  
 SYNERGISTIC EFFECTS OF PHYSICAL AGING AND DAMAGE TO POLY-  
 YMER MATRIX COMPOSITES  
 01/09/1998 - 10/31/1999 FY00: -\$244 Total: \$147,772  
 Prin. Invest.: L C BRINSON  
 Tech. Officer: LARC/T GATES  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1013 NORTHWESTERN UNIVERSITY 4219**  
 PROPHECY: A HIERARCHICAL TOOL FOR MODELING & ANALYZING  
 PARALLEL SCIENTIFIC APPLICATIONS  
 01/27/1998 - 09/30/2001 FY00: \$25,000 Total: \$205,084  
 Prin. Invest.: V E TAYLOR  
 Tech. Officer: ARC/A GRADY  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 1017 NORTHWESTERN UNIVERSITY 4220**  
 ARTICULATE SOFTWARE FOR SPACE-RELATED OUTREACH ACTIVITIES  
 02/05/1998 - 01/31/2000 FY00: \$0 Total: \$222,130  
 Prin. Invest.: K D FORBUS  
 Tech. Officer: ARC/M H SHIRLEY  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 1098 NORTHWESTERN UNIVERSITY 4221**  
 AN INVESTIGATION OF THE EFFECTS OF OUTSOURCING MAINTENANCE  
 ON TASK PERFORMANCE  
 03/15/1999 - 01/31/2001 FY00: \$78,119 Total: \$171,572  
*Prin. Invest.:* E J CZEPIEL  
*Tech. Officer:* ARC/B G KANKI, ARC/M CONNORS  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NGT 5 45 NORTHWESTERN UNIVERSITY 4222**  
 DEVELOPMENT OF ALGAL UV PHOTODETECTORS  
 06/23/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* M RAZEGLI  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 5 88 NORTHWESTERN UNIVERSITY 4223**  
 DEVELOPMENT OF A MOVING GRID RETARDER FOR SUBMILLI METER  
 POLARIMETRY OF SGR B2 (STUDENT: DAVID CHUS  
 05/26/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* G NOVAK  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 13 - PHYSICS

**NGT 5 90 NORTHWESTERN UNIVERSITY 4224**  
 HIGH DETECTION EFFICIENCY PHOTON COUNTERS AT 1064N M AND THEIR  
 USE IN A NOVEL QUANTUM IMAGING SCHEME  
 06/03/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* P KUMAR  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 45 - ELECTRICAL ENGR

**NGT 5 50172 NORTHWESTERN UNIVERSITY 4225**  
 KILOHERTZ QPO NATURE AND ORIGINS USING RXTE  
 05/22/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* MILLER, D LEE  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 13 - PHYSICS

**NGT 5 50198 NORTHWESTERN UNIVERSITY 4226**  
 IMPROVED FEM DYNAMIC SUBSTRUCTURING THROUGH WAVE-BASED  
 JOINT MODELS  
 06/18/1998 - 08/31/2001 FY00: \$22,000 Total: \$60,500  
*Prin. Invest.:* T IGUSA  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 5 50211 NORTHWESTERN UNIVERSITY 4227**  
 STABILITY OF DIFFUSION FLAMES IN MICROGRAVITY  
 07/10/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* M MATALON  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 5 50261 NORTHWESTERN UNIVERSITY 4228**  
 MICROSTRUCTURAL EVOLUTION OF SOLID-LIQUID MIXTURES STUDENT:  
 VICTORIA SNYDER  
 07/06/1999 - 08/31/2000 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* P W VORHEES  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50263 NORTHWESTERN UNIVERSITY 4229**  
 RAPIDLY PROPAGATING BUOYANT FILTRATION COMBUSTION WAVES WITH  
 APPLICATIONS TO SMOLDERING & COMBUSTION  
 07/09/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* B J MATKOWSKY  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3120 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4230**  
 GEOPHYSICAL CHARACTERIZATION OF SOME TERRANES AND THE  
 GEOPHYSICAL MODELING OF CANDIDATE SUTURE ZONES  
 10/26/1995 - 10/31/1999 FY00: \$0 Total: \$67,434  
*Prin. Invest.:* D RAVAT  
*Tech. Officer:* GSFC/R A LANGE, GSFC/P T TAYLOR  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7662 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4231**  
 'COMPREHENSIVE MODELS OF THE NEAR-EARTH MAGNETIC FIELD:  
 INTERPRETATION OF THE LITHOSPHERE  
 09/09/1998 - 03/14/2001 FY00: \$37,000 Total: \$92,500  
*Prin. Invest.:* D RAVAT  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7771 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4232**  
 GEOLOGIC INTERPRETATION OF SATELLITE ALTITUDE CRUSTAL  
 MAGNETIC ANOMALY DATA  
 11/12/1998 - 04/30/2001 FY00: \$45,000 Total: \$110,500  
*Prin. Invest.:* D RAVAT  
*Tech. Officer:* GSFC/P T TAYLOR  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9832 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4233**  
 GEOLOGICAL ANALYSIS OF THE MARTIAN CRUSTAL MAGNETIC ANOMALIES  
 07/26/2000 - 07/31/2001 FY00: \$18,000 Total: \$18,000  
*Prin. Invest.:* D RAVAT  
*Tech. Officer:* GSFC/P TAYLOR  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NGT 5 50321 SOUTHERN ILLINOIS UNIVERSITY - CARBONDALE 4234**  
 ASSESSING MASS WASTING & LANDSLIDE SUSCEPTIBILITY USING GIS &  
 REMOTELY SENSED IMAGERY, SANTA CRUZ IS  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* N PINTER  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 2 6033 UNIVERSITY OF CHICAGO 4235**  
 SYMPOSIUM ON THE DEVELOPMENT BASIS OF EVOLUTIONARY CHANGE  
 04/28/1999 - 09/14/1999 FY00: \$0 Total: \$15,625  
*Prin. Invest.:* N PATEL  
*Tech. Officer:* ARC/R D MACELROY, HQ/M M AVERNER  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 1485 UNIVERSITY OF CHICAGO 4236**  
 MAGNETIC FIELD DYNAMICS IN THE SOLAR INTERIOR AND OUTER SOLAR  
 ATMOSPHERE  
 11/26/1990 - 04/30/2000 FY00: \$0 Total: \$2,291,640  
*Prin. Invest.:* R ROSNER  
*Tech. Officer:* GSFC/T J BIRMINGHAM  
*CASE Category:* 13 - PHYSICS



<b>NAG 5 3076 UNIVERSITY OF CHICAGO 4237</b> STUDIES OF CLASSICAL NOVAE: CONFRONTATION OF THEORY WITH OBSERVATIONS 09/22/1995 - 09/30/1999 FY00: \$0 Total: \$77,751 Prin. Invest.: S G TRURAN Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY	<b>NAG 5 4298 UNIVERSITY OF CHICAGO 4245</b> REFRACTORY INCLUSIONS IN CARBONACEOUS CHONDRITES 04/04/1997 - 02/29/2000 FY00: \$0 Total: \$267,000 Prin. Invest.: D M DAVIS Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 3228 UNIVERSITY OF CHICAGO 4238</b> ABUNDANCES AND PHYSICAL CONDITIONS FOR INDIVIDUALS INTERSTELLAR CLOUDS 05/07/1996 - 04/30/2001 FY00: \$0 Total: \$479,600 Prin. Invest.: D E WELTY Tech. Officer: GSFC/D WEST CASE Category: 11 - ASTRONOMY	<b>NAG 5 4461 UNIVERSITY OF CHICAGO 4246</b> STELLAR ORIGINS AND INTERSTELLAR CARRIERS OF NUCLEOMALIES 05/21/1997 - 03/31/1999 FY00: \$0 Total: \$80,000 Prin. Invest.: D N CLAYTON Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 3253 UNIVERSITY OF CHICAGO 4239</b> MICROWAVE ANISOTROPY PROBE FOR MIDEX 06/06/1996 - 06/14/1999 FY00: \$0 Total: \$99,620 Prin. Invest.: S S MEYER Tech. Officer: GSFC/C L BENNETT CASE Category: 11 - ASTRONOMY	<b>NAG 5 4462 UNIVERSITY OF CHICAGO 4247</b> MILLIMETER APERTURE SYNTHESIS POLARIMETRY AND THE N OF PROTO-PLANETARY DISKS 06/09/1997 - 09/30/2000 FY00: \$0 Total: \$158,776 Prin. Invest.: D E CARLSTROM Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 3670 UNIVERSITY OF CHICAGO 4240</b> ANALYSIS AND MODELING OF CYCLOTRON LINES IN THE SP BURSTS; CONTRAINTS ON THE DISTANCE SCALE TO COSMO 12/31/1996 - 12/31/1999 FY00: \$0 Total: \$55,000 Prin. Invest.: D Q LAMB Tech. Officer: GSFC/J P NORRIS CASE Category: 11 - ASTRONOMY	<b>NAG 5 4476 UNIVERSITY OF CHICAGO 4248</b> CHEMICAL ASPECTS OF THE ORIGIN OF THE SOLAR SYSTEM 06/09/1997 - 11/30/2000 FY00: \$213,000 Total: \$861,000 Prin. Invest.: D GROSSMAN Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 3687 UNIVERSITY OF CHICAGO 4241</b> ACCRETION AND OUTFLOW PHENOMENA IN YOUNG STELLAR O 01/15/1997 - 01/14/2001 FY00: \$94,200 Total: \$457,400 Prin. Invest.: A KONIGL Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY	<b>NAG 5 4499 UNIVERSITY OF CHICAGO 4249</b> MARS 94 PARTICIPATING SCIENTIST AND CO-INVESTIGATO 05/06/1997 - 04/30/1999 FY00: \$0 Total: \$60,000 Prin. Invest.: D E ECONOMOU Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 3986 UNIVERSITY OF CHICAGO 4242</b> ISOTOPIC STUDIES OF THE MOON AND METEORITES 02/26/1997 - 03/31/2001 FY00: \$260,000 Total: \$1,030,000 Prin. Invest.: D N CLAYTON Tech. Officer: GSFC/J BOYCE CASE Category: 12 - CHEMISTRY	<b>NAG 5 4509 UNIVERSITY OF CHICAGO 4250</b> GINGA GAMMA-RAY BURST LINE OCCURRENCE 05/15/1997 - 05/14/1999 FY00: -\$220 Total: \$47,680 Prin. Invest.: D Q LAMB Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY
<b>NAG 5 4070 UNIVERSITY OF CHICAGO 4243</b> INFRARED SPECTROSCOPY OF MOLECULAR IONS OF ASTROPH 03/19/1997 - 12/31/1999 FY00: \$0 Total: \$154,000 Prin. Invest.: D OKA Tech. Officer: GSFC/H THRONSON CASE Category: 11 - ASTRONOMY	<b>NAG 5 4777 UNIVERSITY OF CHICAGO 4251</b> PHYSICAL INVESTIGATORS RELATED TO RAIN AND RETRIEV OF RAIN AND LATENT HEATING 08/20/1997 - 06/30/2000 FY00: \$51,000 Total: \$278,668 Prin. Invest.: R C SRIVASTAVA Tech. Officer: GSFC/O W THIELE CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 4297 UNIVERSITY OF CHICAGO 4244</b> PRESOLAR GRAINS AND THE EARLY SOLAR SYSTEM 04/04/1997 - 11/30/2000 FY00: \$0 Total: \$507,595 Prin. Invest.: D S LEWIS Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY	<b>NAG 5 4953 UNIVERSITY OF CHICAGO 4252</b> TURBULENT CONVECTION AND ITS ROLE IN ACOUSTIC EMIS 06/23/1997 - 04/30/2001 FY00: \$45,847 Total: \$318,997 Prin. Invest.: D CATTANEO Tech. Officer: GSFC/W J WAGNER CASE Category: 13 - PHYSICS

**NAG 5 5070 UNIVERSITY OF CHICAGO 4253**  
 HIGH ENERGY ANTIMATTER TELESCOPE (HEAT)  
 05/03/1996 - 05/31/2000 FY00: \$0 Total: \$727,000  
*Prin. Invest.:* D MULLER  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5071 UNIVERSITY OF CHICAGO 4254**  
 STUDIES OF THE COSMIC RADIATION AT HIGH ENERGIES  
 05/03/1996 - 05/31/2000 FY00: \$0 Total: \$672,000  
*Prin. Invest.:* S P SWORDY  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5072 UNIVERSITY OF CHICAGO 4255**  
 EXPERIMENTS IN HIGH ENERGY ASTROPHYSICS  
 05/03/1996 - 05/07/2001 FY00: \$785,000 Total: \$1,940,024  
*Prin. Invest.:* D MULLER  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5178 UNIVERSITY OF CHICAGO 4256**  
 STUDY OF A TRANSITION RADIATION DETECTOR FOR THE ACCESS  
 MISSION  
 03/30/1998 - 12/31/2000 FY00: \$45,600 Total: \$379,600  
*Prin. Invest.:* S P SWORDY  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5179 UNIVERSITY OF CHICAGO 4257**  
 ORIGINS OF GALACTIC COSMIC RADIATION: TESTING ALTERNATE MODELS  
 WITH RADIOACTIVE & STABLE ISOTOPE  
 03/09/1998 - 03/31/2001 FY00: \$36,000 Total: \$116,000  
*Prin. Invest.:* J A SIMPSON  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5223 UNIVERSITY OF CHICAGO 4258**  
 GRANT NAG5-5223 - HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) PI  
 DR. DIETRICH MULLER  
 03/16/1999 - 03/11/2002 FY00: \$180,000 Total: \$380,000  
*Prin. Invest.:* D MULLER  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5229 UNIVERSITY OF CHICAGO 4259**  
 GRANT NAG5-5229 STUDIES OF THE COSMIC RADIATION AT HIGH ENER-  
 GIES PI PROF SWORDY  
 03/16/1999 - 03/11/2002 FY00: \$288,000 Total: \$448,000  
*Prin. Invest.:* SWORDY  
*Tech. Officer:* GSFC/B MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6405 UNIVERSITY OF CHICAGO 4260**  
 STRUCTURE, KINEMATICS & ABUNDANCES IN LOCAL ISM (LTSA)  
 10/10/1997 - 10/14/2000 FY00: \$67,300 Total: \$192,399  
*Prin. Invest.:* P FRISCH  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6472 UNIVERSITY OF CHICAGO 4261**  
 PIONEER - 10 INVESTIGATIONS OF JOVIAN AND HELIOSPHERIC RELATIV-  
 ISTIC ELECTRONS  
 11/13/1997 - 10/31/1999 FY00: \$0 Total: \$144,014  
*Prin. Invest.:* J SIMPSON  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6489 UNIVERSITY OF CHICAGO 4262**  
 DEVELOPMENT OF FREQUENCY SELECTIVE BOLOMETERS  
 01/15/1998 - 10/31/2000 FY00: \$89,295 Total: \$339,295  
*Prin. Invest.:* D MEYER  
*Tech. Officer:* GSFC/H THRONSON  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6625 UNIVERSITY OF CHICAGO 4263**  
 WORKSHOP ON INTERSTELLAR DUST IN THE SOLAR SYSTEM  
 11/19/1997 - 11/30/2000 FY00: \$0 Total: \$25,000  
*Prin. Invest.:* P D FRISCH  
*Tech. Officer:* GSFC/H THRONSON  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6693 UNIVERSITY OF CHICAGO 4264**  
 THE PRACTICAL AND OBSERVATIONAL INVESTIGATIONS OF LAGRANGIAN-  
 MEAN TRACER TRANSPORT IN THE STRATOSPHERE  
 12/04/1997 - 12/31/2000 FY00: \$95,031 Total: \$285,882  
*Prin. Invest.:* D NAKAMURA  
*Tech. Officer:* GSFC/C JACKMAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 6765 UNIVERSITY OF CHICAGO 4265**  
 ISM TOWARD ETA UMA  
 12/30/1997 - 12/31/1999 FY00: \$0 Total: \$15,000  
*Prin. Invest.:* P FRISCH  
*Tech. Officer:* GSFC/R POLIDAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6972 UNIVERSITY OF CHICAGO 4266**  
 MASS LOSS KINETICS AND ISOTOPE FRACTIONATION OF MOL TEN CAI  
 COMPOSITIONS  
 03/13/1998 - 05/31/2001 FY00: \$0 Total: \$100,000  
*Prin. Invest.:* F M RICHTER  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7077 UNIVERSITY OF CHICAGO 4267**  
 BOUNDARY CONDITIONS OF THE HELIOSPHERE  
 02/23/1998 - 04/30/2001 FY00: \$96,600 Total: \$197,100  
*Prin. Invest.:* P C FRISCH  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7163 UNIVERSITY OF CHICAGO 4268**  
 DEVELOPMENT OF A MINIATURIZED LOW-ENERGY SOLAR NEUTRON  
 DETECTOR FOR APPLICATION TO NEAR-SUN EXPLORATION  
 03/12/1998 - 04/14/2001 FY00: \$0 Total: \$109,823  
*Prin. Invest.:* R MCKIBBEN  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

<b>NAG 5 7212</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4269</b>	
NUCLEOSYNTHETIC ISOTOPIC ANOMALIES			
03/26/1998 - 03/31/2001	FY00: \$35,000	Total: \$75,000	
Prin. Invest.: R CLAYTON			
Tech. Officer: HQ/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7307</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4270</b>	
KINETICS OF VOLATILIZATION OF INTERSTELLAR GRAINS			
04/22/1998 - 03/31/2001	FY00: \$0	Total: \$158,800	
Prin. Invest.: L GROSSMAN			
Tech. Officer: HQ/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7308</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4271</b>	
MINERALOGY AND CHEMISTRY OF PLANETS AND METEORITES			
04/22/1998 - 05/31/2000	FY00: \$0	Total: \$23,000	
Prin. Invest.: I M STEELE			
Tech. Officer: HQ/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7731</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4272</b>	
RADIATIVE-DYNAMIC PROBLEMS RELATED TO THE ATMOSPHERE OF EARLY MARS			
09/24/1998 - 09/30/2000	FY00: \$68,068	Total: \$148,904	
Prin. Invest.: R PIERREHUMBERT			
Tech. Officer: GSFC/R BEEBE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7880</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4273</b>	
EXPERIMENTAL INVESTIGATION OF OBLIQUE JETTING IMPACTS			
11/30/1998 - 11/30/2000	FY00: \$0	Total: \$30,000	
Prin. Invest.: G H MILLER			
Tech. Officer: GSFC/J GRANT			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7986</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4274</b>	
GALAXY CLUSTERS AS COSMOLOGICAL PROBES: ANALYSES OF X-RAY, LENSING, AND SUNYAEV ZEL'DOVICH MEASUREMENTS			
01/03/1999 - 12/31/2000	FY00: \$124,559	Total: \$254,948	
Prin. Invest.: J E CARLSTROM			
Tech. Officer: GSFC/D K WEST			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8032</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4275</b>	
ASTROPHYSICAL STUDIES WITH IMP SATELLITE DATA			
01/19/1999 - 12/31/2000	FY00: \$90,000	Total: \$140,000	
Prin. Invest.: C LOPATE			
Tech. Officer: GSFC/J KING			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8163</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4276</b>	
THE JOURNEY OF THE SUN - A VIRTUAL REALITY SIMULATION			
02/08/1999 - 01/31/2001	FY00: \$121,100	Total: \$233,025	
Prin. Invest.: P C FRISCH			
Tech. Officer: GSFC/J BREDEKAP			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8495</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4277</b>	
RESEARCH: "HYDROMAGNETIC AND MAGNETOHYDRODYNAMIC PROCESSES ON SUN". ONE YEAR STUDY FUNDED BY NASA'S			
05/10/1999 - 05/14/2000	FY00: \$0	Total: \$111,000	
Prin. Invest.: R ROSNER			
Tech. Officer: GSFC/J M GREBOWSKY			
CASE Category: 13 - PHYSICS			
<b>NAG 5 8539</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4278</b>	
PRIOR GRANT: NAG5-3253 CONTINUATION OF MAP SCIENCE SUPPORT ACTIVITIES BEING IMPLEMENTED BY THE MAP			
08/17/1999 - 08/14/2000	FY00: \$45,161	Total: \$95,161	
Prin. Invest.: S MEYER			
Tech. Officer: GSFC/C BENNETT			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8571</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4279</b>	
PERIODIC, QUASI-PERIODIC, AND BURSTING BEHAVIOR OF NEUTRON STAR X-RAY SOURCES			
05/25/1999 - 12/31/1999	FY00: -\$37,237	Total: \$33,763	
Prin. Invest.: M MILLER			
Tech. Officer: GSFC/D K WEST			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8703</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4280</b>	
194TH MEETING OF THE AMERICAN ASTRONOMICAL SOCIETY CHICAGO, ILLINOIS, MAY 30 - JUNE 3, 1999			
07/21/1999 - 10/31/1999	FY00: -\$1,393	Total: \$6,107	
Prin. Invest.: R KRON			
Tech. Officer: GSFC/P CRANE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8708</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4281</b>	
RADIO INTERFEROMETRIC STUDIES OF COMETS AND ASTEROIDS			
07/20/1999 - 12/31/2000	FY00: \$30,000	Total: \$60,000	
Prin. Invest.: P PALMER			
Tech. Officer: GSFC/T MORGAN			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8817</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4282</b>	
CRYOGENIC STRIPLINE MULTIPLEXERS			
09/03/1999 - 06/14/2000	FY00: \$0	Total: \$25,470	
Prin. Invest.: S MEYER			
Tech. Officer: GSFC/G F HINSHAW			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 9016</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4283</b>	
PROPOSAL TO THE NASA ESS HPC PROGRAM			
02/01/2000 - 01/31/2001	FY00: \$29,335	Total: \$29,335	
Prin. Invest.: D OLSON			
Tech. Officer: GSFC/D SPICER			
CASE Category: 22 - COMPUTER SCIENCE			
<b>NAG 5 9063</b>	<b>UNIVERSITY OF CHICAGO</b>	<b>4284</b>	
DISK-DRIVEN OUTFLOWS IN ACTIVE GALACTIC NUCLEI - ATP-99			
02/14/2000 - 02/14/2001	FY00: \$56,914	Total: \$56,914	
Prin. Invest.: A KONIGL			
Tech. Officer: GSFC/R J OLIVERSEN			
CASE Category: 11 - ASTRONOMY			

**NAG 5 9083 UNIVERSITY OF CHICAGO 4285**  
 STATISTICAL METHODOLOGY FOR DETECTION OF OZONE TURN AROUND  
 UNDER DIFFERENT DATA CONDITIONS  
 02/16/2000 - 02/28/2001 FY00: \$30,000 Total: \$30,000  
*Prin. Invest.:* G C TIAO  
*Tech. Officer:* GSFC/P K BHARTIA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9303 UNIVERSITY OF CHICAGO 4286**  
 LABORATORY STUDIES OF HETEROGENEOUS CHEMISTRY IN THE UPPER  
 TROPOSPHERE. NRA-97-OASTT-01 DATED JANUA  
 03/22/2000 - 03/31/2001 FY00: \$76,130 Total: \$76,130  
*Prin. Invest.:* D ABBATT  
*Tech. Officer:* GSFC/R LAWRENCEQ  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9362 UNIVERSITY OF CHICAGO 4287**  
 SUPPORT FOR THE 63RD ANNUAL METEORITICAL SOCIETY MEETING  
 CHICAGO, AUGUST 28-SEPTEMBER  
 03/30/2000 - 03/31/2001 FY00: \$23,000 Total: \$23,000  
*Prin. Invest.:* A M DAVIS  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9378 UNIVERSITY OF CHICAGO 4288**  
 MASS LOSS KINETICS AND ISOTOPE FRACTIONATION OF MOLTEN CAI  
 COMPOSITIONS  
 04/03/2000 - 03/31/2003 FY00: \$57,000 Total: \$57,000  
*Prin. Invest.:* F RICHTER  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9510 UNIVERSITY OF CHICAGO 4289**  
 REFRACTORY INCLUSIONS IN CARBONACEOUS CHONDRITES  
 04/25/2000 - 04/30/2001 FY00: \$88,000 Total: \$88,000  
*Prin. Invest.:* A M DAVIS  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9583 UNIVERSITY OF CHICAGO 4290**  
 SEARCH FOR NEW VIBRATIONAL AND ELECTRONIC SPECTRA OF MOLEC-  
 ULAR IONS OF ASTROPHYSICAL INTEREST  
 05/09/2000 - 05/14/2001 FY00: \$65,940 Total: \$65,940  
*Prin. Invest.:* T OKA  
*Tech. Officer:* GSFC/P CRANE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9767 UNIVERSITY OF CHICAGO 4291**  
 PATHFINDER ALPHA PROTON X-RAY SPECTROMETER DATA ANALYSIS &  
 INTERPRETATION (ID#: 19963)  
 06/28/2000 - 06/30/2001 FY00: \$70,000 Total: \$70,000  
*Prin. Invest.:* T ECONOMOU  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9800 UNIVERSITY OF CHICAGO 4292**  
 SIDEROPHILE ELEMENT MICROANALYSIS BY LASER ABLATION ICPMS  
 07/14/2000 - 06/30/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* M HUMAYUN  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1096 UNIVERSITY OF CHICAGO 4293**  
 GENESIS PHASE C/D  
 04/02/1999 - 07/11/2002 FY00: \$21,600 Total: \$41,600  
*Prin. Invest.:* M HUMAYUNO  
*Tech. Officer:* JSC/K CYR  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 2 1103 UNIVERSITY OF CHICAGO 4294**  
 NUMERICAL EXPERIMENTS ON THE DYNAMICS OF GALAXIES  
 04/01/1999 - 08/31/2001 FY00: \$0 Total: \$5,000  
*Prin. Invest.:* R N MILLER  
*Tech. Officer:* ARC/B F SMITH  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 151 UNIVERSITY OF CHICAGO 4295**  
 GRAND CHALLENGE RESEARCH  
 08/26/1996 - 06/30/2000 FY00: \$0 Total: \$1,740,000  
*Prin. Invest.:* A MALAGOLI  
*Tech. Officer:* GSFC/J R FISCHER  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NGT 5 63 UNIVERSITY OF CHICAGO 4296**  
 USING POP-UP DETECTOR ARRAYS FOR POLARIMETRY  
 06/04/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* R H HILDERBRAND  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 13 - PHYSICS

**NGT 5 86 UNIVERSITY OF CHICAGO 4297**  
 MEASUREMENTS OF ANISOTROPY IN THE COSMIC MICROWAVE BACK-  
 GROUND WITH THE TOPHAT-SPINNER TELESCOPE/STU  
 05/20/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* S MEYER  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 13 - PHYSICS

**NGT 5 50005 UNIVERSITY OF CHICAGO 4298**  
 ELEMENTAL COMPOSITION OF HIGH ENERGY COSMIC RAYS  
 11/25/1996 - 09/30/1999 FY00: \$0 Total: \$86,000  
*Prin. Invest.:* D MULLER  
*Tech. Officer:* GSFC/A NURRIDIN  
*CASE Category:* 13 - PHYSICS

**NGT 5 50142 UNIVERSITY OF CHICAGO 4299**  
 STATISTICAL ANALYSIS OF THE COSMIC MICROWAVE BACKG  
 09/10/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* D SCHRAM  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50173 UNIVERSITY OF CHICAGO 4300**  
 X-RAY AND SUNYAEV-ZEL'DOVICH IMAGING OF GALAXY CLUSTERS AS  
 A COSMOLOGICAL PROBE  
 05/22/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* J E CARLSTROM/REESE  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 11 - ASTRONOMY

**NAG 2 1172 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4301**  
 DATA INTENSIVE COMPUTING OF HYBRID SYSTEM DATA  
 01/12/1998 - 12/31/2000 FY00: \$60,000 Total: \$180,000  
 Prin. Invest.: R GROSSMAN  
 Tech. Officer: ARC/G MEYER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 2 1358 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4302**  
 AN ULTRASTRUCTURAL STUDY OF DEVELOPMENT IN VESTIBULAR HAIR  
 CELLS, & THEIR CELLULAR RESPONSES TO HYP  
 07/23/1999 - 12/31/2000 FY00: \$125,130 Total: \$187,366  
 Prin. Invest.: A LYSAKOWSKI  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1631 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4303**  
 THE EFFECTS OF SOOTING IN REDUCED GRAVITY DROPLET COMBUSTION  
 06/24/1994 - 05/31/1999 FY00: \$0 Total: \$345,933  
 Prin. Invest.: M Y CHOI, NONE  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1905 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4304**  
 FLUID DYNAMICS AND SOLIDIFICATION OF MOLTEN SOLDER DROPLETS  
 IMPACTING ON A SUBSTRATE IN MICROGRAVITY  
 06/10/1996 - 08/25/2000 FY00: \$45,034 Total: \$358,020  
 Prin. Invest.: D POULIKAKOS  
 Tech. Officer: GRC/W DUVAL  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2450 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4305**  
 DESIGN OF GEAR DRIVES WITH HIGH GEAR RATIO DESIGN OF GEAR  
 DRIVES WITH HIGH GEAR RATIO  
 06/09/2000 - 09/30/2002 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: D L LITVIN Prin. Invest.: NONE  
 Tech. Officer: GRC/R F HANDSCHUH  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2456 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4306**  
 MOLTEN-METAL DROPLET DEPOSITION ON A MOVING SUBSTRATE IN  
 MICROGRAVITY: AIDING THE DEVELOPMENT OF NO  
 06/08/2000 - 11/30/2003 FY00: \$38,202 Total: \$38,202  
 Prin. Invest.: D M MEGARIDIS  
 Tech. Officer: GRC/W B DUVAL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 4593 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4307**  
 ULTRASTRUCTURAL, NEUROCHEMICAL AND DEVELOPMENTAL REHYPER-  
 GRAVITY  
 05/19/1997 - 05/14/2000 FY00: \$0 Total: \$160,431  
 Prin. Invest.: A LYSAKOWSKI  
 Tech. Officer: GSFC/T SCOTT  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 7600 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4308**  
 PARAMETERIZATION OF AN ANSIOTHERMAL VEGETATION  
 07/21/1998 - 07/14/2000 FY00: \$0 Total: \$50,006  
 Prin. Invest.: R D CRAGO  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9209 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4309**  
 UNIVERSITY OF CHICAGO TOPHAT COLLABORATION  
 03/16/2000 - 03/14/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: S MEYER  
 Tech. Officer: GSFC/E CHENG  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9427 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4310**  
 ANTARCTIC DRY VALLEY LAKES: ANALOGS OF ANCIENT MARTIAN LACU-  
 STRINE SYSTEMS  
 04/11/2000 - 04/14/2003 FY00: \$63,302 Total: \$63,302  
 Prin. Invest.: P DORAN  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1248 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4311**  
 THREE DIMENSIONAL VELOCITY FIELD CHARACTERIZATION IN A  
 BRIDGMAN APPARATUS  
 04/30/1996 - 04/29/2001 FY00: \$58,333 Total: \$400,000  
 Prin. Invest.: S S CHA  
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1261 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4312**  
 RESEARCH "COMBUSTION SYNTHESIS OF MATERIALS IN MICROGRAVITY"  
 04/25/1996 - 04/30/2000 FY00: \$120,000 Total: \$483,531  
 Prin. Invest.: K BREZINSKY  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1473 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4313**  
 MICROGRAVITY INVESTIGATION OF DYNAMIC OXYGEN ABSORPTION IN  
 MOLTEN SOLDER JETTING  
 04/13/1998 - 01/31/2002 FY00: \$100,000 Total: \$263,333  
 Prin. Invest.: C MEGARIDIS  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 46 - MECHANICAL ENGR

**NAS 3 99189 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4314**  
 DEFECT ENGINEERING & RELIABILITY STUDY OF SIC HIGH-POWER  
 DEVICES  
 09/09/1999 - 09/30/2000 FY00: \$35,035 Total: \$260,034  
 Prin. Invest.: K SHENAI  
 Tech. Officer: GRC/P J GEORGE  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 3 655 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4315**  
 EXPERIMENTS AND MODEL DEVELOPMENT FOR INVESTIGATION OF  
 SOOTING AND RADIATION EFFECTS IN MICROGRAVITY  
 12/29/1998 - 01/04/2003 FY00: \$44,914 Total: \$185,760  
 Prin. Invest.: Y CHOI, NONE  
 Tech. Officer: GRC/D L URBAN  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 665 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4316**  
 INVESTIGATION OF SOOTING AND RADIATION EFFECTS IN MICROGRAVITY  
 DROPLET COMBUSTION USING JAPAN'S JAMI  
 02/02/1999 - 01/03/2000 FY00: \$0 Total: \$25,155  
 Prin. Invest.: M Y CHOI  
 Tech. Officer: GRC/D L URBAN  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 688 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4317**  
 GRAVITATIONAL EFFECTS ON PARTIALLY-PREMIXED FLAMES GRAVITA-  
 TIONAL EFFECTS ON PARTIALLY-PREMIXED FLAME  
 03/16/1999 - 03/09/2003 FY00: \$90,505 Total: \$158,008  
*Prin. Invest.:* D K PURI  
*Tech. Officer:* GRC/K R SACKSTEDER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 3 694 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4318**  
 THE EXTINCTION OF LOW STRAIN RATE DIFFUSION FLAMES BY AN AGENT  
 IN MICROGRAVITY  
 03/22/1999 - 03/21/2003 FY00: \$29,308 Total: \$43,265  
*Prin. Invest.:* I K PURI  
*Tech. Officer:* GRC/S L OLSON  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 3 52322 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4319**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 09/11/1996 - 08/31/1999 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* M Y CHOI  
*Tech. Officer:* GRC/F MONTEGANI  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 5 50155 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4320**  
 MODELLING OF SOOTING AND RADIATION EFFECTS IN DROP SAMUEL  
 MANZELLO  
 09/11/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* M CHOI  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50214 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE 4321**  
 EXPERIMENTAL INVESTIGATION OF ENVIRONMENT OXYGEN CONTENT IN  
 SOLDER JET TECHNOLOGY (STUDENT: ERIC  
 07/22/1998 - 07/31/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* C M MEGARIDIS  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 1 2221 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4322**  
 EVALUATION INTERACTIONS BETWEEN CHEMICAL AND CLIMATE  
 PROCESSES IN THE TROPOSPHERE & STRATOSPHERE  
 08/20/1999 - 07/31/2002 FY00: \$56,232 Total: \$111,232  
*Prin. Invest.:* D J WUBBLES  
*Tech. Officer:* LARC/G MADDREA, LARC/L R POOLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 2 1120 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4323**  
 SEAMLESS DISPLAYS FOR AIRCRAFT LANDING  
 03/27/1997 - 11/14/2000 FY00: \$76,649 Total: \$294,043  
*Prin. Invest.:* C D WICKENS  
*Tech. Officer:* ARC/D C FOYLE  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NAG 2 1126 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4324**  
 ADVANCEMENTS IN 3-D NUMERICAL MODELING OF DUCTILE FRACTURE  
 04/11/1997 - 12/31/2000 FY00: \$150,121 Total: \$584,233  
*Prin. Invest.:* R H DODDS, JR.  
*Tech. Officer:* ARC/R W HAMPTON, ARC/J C NEWMAN, JR.  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 2 1224 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4325**  
 ATTENTION BASE SITUATION AWARENESS SUPPORT FOR ROT ORCRAFT  
 OPERATIONS  
 07/23/1998 - 01/14/1999 FY00: \$0 Total: \$65,816  
*Prin. Invest.:* C D WICKENS  
*Tech. Officer:* ARC/S G HART, ARC/R J SHIVELY  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NAG 2 1250 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4326**  
 APPLICATION/SYSTEM ZOS INNERFACE CAPABILITIES  
 08/14/1998 - 12/31/1999 FY00: \$0 Total: \$100,000  
*Prin. Invest.:* K NAHRSTEDT  
*Tech. Officer:* ARC/K A FREEMAN, ARC/B H WHITAKER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1282 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4327**  
 INCREMENTAL TRANSFER OF TRAINING EFFECTIVENESS OF AVIATION  
 TRAINING DEVICES  
 01/13/1999 - 09/30/2000 FY00: \$99,993 Total: \$199,105  
*Prin. Invest.:* H L TAYLOR, G L BRADSHAW, T W EMANUEL  
*Tech. Officer:* ARC/I BARSHI  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NAG 2 1406 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4328**  
 QOS PROGRAMMING AND DEVELOPMENT ENVIRONMENT  
 05/08/2000 - 12/31/2000 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* K NAHRSTEDT  
*Tech. Officer:* ARC/K A FREEMAN  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1424 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4329**  
 NEXT GENERATION MODELING OF DAMAGE TOLERANCE FOR RISK  
 ASSESSMENT & MITIGATION IN HIGH PERFORMANCE S  
 07/20/2000 - 07/14/2001 FY00: \$75,000 Total: \$75,000  
*Prin. Invest.:* R H DODDS  
*Tech. Officer:* ARC/T L PANONTIN  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 3 1926 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4330**  
 PREDICTION OF MACROSCOPIC PROPERTIES IN LIQUID HELIUM FROM  
 COMPUTER SIMULATION  
 07/19/1996 - 01/08/2001 FY00: \$70,000 Total: \$475,000  
*Prin. Invest.:* D M CEPERLEY, N GOLDENFIELD  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 13 - PHYSICS

**NAG 3 1983 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4331**  
 DEVELOPMENT OF A SHAPE OPTIMIZATION TOOL FOR TRANSONIC  
 COMPRESSORS BASDON NAVIER STOKES PHYSICS  
 11/04/1996 - 10/31/1999 FY00: \$0 Total: \$135,068  
*Prin. Invest.:* K D LEE  
*Tech. Officer:* GRC/E R MCFARLAND, GRC/J R WOOD  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 1988 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4332**  
 A STUDY OF ICE ACCRETION PHYSICS TO IMPROVE THE PREDICTION OF  
 ICE ACCRETION ON AIRCRAFTS  
 11/15/1996 - 10/31/2000 FY00: \$0 Total: \$294,988  
*Prin. Invest.:* M B BRAGG  
*Tech. Officer:* GRC/D N ANDERSON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2122 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4333**  
 FLUID PHYSICS OF FOAM EVOLUTION AND FLOW FLUID PHYSICS OF FOAM  
 EVOLUTION AND FLOW  
 02/13/1998 - 01/06/2002 FY00: \$100,000 Total: \$281,255  
 Prin. Invest.: H AREF  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2135 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4334**  
 SMART ICING SYSTEMS SMART ICING SYSTEMS  
 03/05/1998 - 11/30/2002 FY00: \$400,000 Total: \$950,000  
 Prin. Invest.: M B BRAGG, P G VOUGARIS, N B SURTER  
 Tech. Officer: GRC/T H BOND, GRC/M G PETAPCZUK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2236 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4335**  
 DEVELOPMENT OF GRID TECHNOLOGIES FOR SEMI-AUTOMATE D ANAL-  
 YSIS OS ICING EFFECTS ON AIR FOILS  
 02/22/1999 - 11/30/2000 FY00: \$60,000 Total: \$90,000  
 Prin. Invest.: K D LEE  
 Tech. Officer: GRC/Y K CHOO  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2263 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4336**  
 WIDEBAND CDMA FOR A SATCOM BASED AVIONICS NETWORK WIDEBAND  
 CDMA FOR A SATCOM BASED AVIONICS NETWORK  
 05/03/1999 - 03/31/2002 FY00: \$35,598 Total: \$108,598  
 Prin. Invest.: U MADHOW  
 Tech. Officer: GRC/K S CHUN  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2271 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4337**  
 AERODYNAMICS FLOWFIELD CHARACTERIZATION FOR ICING AERODY-  
 NAMICS FLOWFIELD CHARACTERIZATION FOR ICING  
 06/28/1999 - 12/04/2000 FY00: \$6,326 Total: \$87,326  
 Prin. Invest.: D B BRAGG  
 Tech. Officer: GRC/H E ADDY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2314 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4338**  
 DEVELOPMENT OF A NEW SHAPE OPTIMIZATION TOOL FOR 3 D TRAN-  
 SONIC COMPRESSORS BASED ON NAVIER-STOKES PH  
 12/30/1999 - 12/15/2000 FY00: \$54,808 Total: \$54,808  
 Prin. Invest.: K D LEE  
 Tech. Officer: GRC/E R MCFARLAND  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 2040 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4339**  
 EOSDIS VERSION O STANDARD DATA FORMAT SUPPORT  
 07/16/1992 - 12/31/2000 FY00: \$465,000 Total: \$2,495,045  
 Prin. Invest.: M FOLK  
 Tech. Officer: GSFC/C CARLISLE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 3246 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4340**  
 A COMPREHENSIVE INVESTIGATION OF THE STRUCTURING O F THE  
 INTERSTELLAR MEDIUM BY MASSIVE STARS  
 05/29/1996 - 04/30/2000 FY00: \$0 Total: \$180,000  
 Prin. Invest.: Y CHU  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3350 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4341**  
 ISO GUEST OBSERVER SUPPORT FOR DATA ANALYSIS  
 08/09/1996 - 08/14/1999 FY00: \$0 Total: \$89,420  
 Prin. Invest.: M MELXNER  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3661 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4342**  
 THE LAND SURFACE COMPONENT OF THE CLIMATE SYSTEM: .....  
 12/19/1996 - 08/14/2000 FY00: \$0 Total: \$225,899  
 Prin. Invest.: P KUMAR  
 Tech. Officer: GSFC/R D KOSTER, GSFC/E T ENGMAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3923 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4343**  
 RADIATION HYDRODYNAMICS AND THE CHEMICAL  
 02/19/1997 - 02/14/2000 FY00: \$0 Total: \$232,980  
 Prin. Invest.: M L NORMAN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4228 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4344**  
 ACCESSING SPACE SCIENCE DATA USING THE INTERNET  
 04/14/1997 - 09/30/1999 FY00: \$0 Total: \$320,000  
 Prin. Invest.: M MCGRATH  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 4292 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4345**  
 RADIO INTERFEROMETRIC STUDIES OF COMETS  
 04/15/1997 - 12/31/1999 FY00: \$0 Total: \$100,000  
 Prin. Invest.: D E SNYDER  
 Tech. Officer: GSFC/W HUEBNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4414 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4346**  
 "MODELING STUDIES TO REDUCE UNCERTAINTIES IN EVALU HSCT  
 AIRCRAFT EFFECTS ON THE GLOBAL ATMOSPHERE"  
 05/06/1997 - 08/31/2000 FY00: \$20,000 Total: \$182,681  
 Prin. Invest.: D J WUEBBLES  
 Tech. Officer: GSFC/R W STEWART  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4858 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4347**  
 REMOTE SENSING OF CANOPY PROPERTIES FOR A FOREST U CO2  
 ENRICHMENT  
 07/08/1997 - 05/31/2000 FY00: \$0 Total: \$214,385  
 Prin. Invest.: D DELUCIA  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 5087 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4348**  
 INTERFEROMETRIC RADAR OBSERVATIONS OF MID-LATITUDE SPORAD-  
 IC-E ECHOES  
 06/25/1996 - 11/30/2000 FY00: \$0 Total: \$249,000  
 Prin. Invest.: F KUDEKI  
 Tech. Officer: GSFC/L W GURKIN  
 CASE Category: 13 - PHYSICS

**NAG 5 5241 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4349**  
 A SOUNDING ROCKET INVESTIGATION PI DR. C GARDNER  
 02/12/1999 - 02/08/2002 FY00: \$48,540 Total: \$57,634  
 Prin. Invest.: C GARDNER  
 Tech. Officer: GSFC/W JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 6723 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4350**  
 SUPPORT FOR LARGE DATA SET IN EOSDIS  
 12/12/1997 - 06/30/1999 FY00: \$0 Total: \$282,600  
 Prin. Invest.: M FOLK  
 Tech. Officer: GSFC/R KREIDER  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 6836 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4351**  
 ATMOSPHERIC FORCING OF GREENLAND ICE SHEET  
 01/08/1998 - 12/31/2000 FY00: \$19,100 Total: \$214,785  
 Prin. Invest.: J WALSH  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7003 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4352**  
 ENERGETICS OF SUPERNOVA REMNANTS  
 02/09/1998 - 07/31/2000 FY00: \$0 Total: \$140,900  
 Prin. Invest.: Y CHU  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7152 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4353**  
 ROTATING AND BINARY NEUTRON STARS IN GENERAL RELATIVITY - ATP  
 03/05/1998 - 03/14/2001 FY00: \$111,136 Total: \$166,136  
 Prin. Invest.: S L SHAPIRO  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7170 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4354**  
 CHARACTERIZING MULTISCALE INTERACTION OF HYDROLOGIC  
 PROCESSES USING MULTISENSOR SATELLITE DATA  
 03/30/1998 - 12/31/2000 FY00: \$0 Total: \$113,658  
 Prin. Invest.: P KUMAR  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7404 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4355**  
 MODELLING X-RAY CLUSTERS: EVOLUTION AND REALISTIC PHYSICS  
 05/15/1998 - 05/31/2001 FY00: \$0 Total: \$51,460  
 Prin. Invest.: M L NORMAN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7892 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4356**  
 HIGH-POWER DOUBLE-CLAD FIBERS FOR WATER VAPOR SENSING  
 09/18/1998 - 09/30/1999 FY00: -\$27 Total: \$14,973  
 Prin. Invest.: G PAPAN  
 Tech. Officer: GSFC/M KRAINAK  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 8103 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4357**  
 ORIGIN OF X-RAY EMISSION FROM PLANETARY NEBULAE-AD P 98  
 02/05/1999 - 07/31/2000 FY00: \$0 Total: \$32,000  
 Prin. Invest.: Y CHU  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8104 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4358**  
 ORIGIN OF X-RAY EMISSION FROM PLANETARY NEBULAE-AD P 98  
 02/05/1999 - 01/31/2001 FY00: \$39,000 Total: \$78,000  
 Prin. Invest.: U CHU  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8221 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4359**  
 "REDUCING UNCERTAINTIES IN UNDERSTANDING THE POTENTIAL  
 EFFECTS OF HSCAIRCRAFT ON THE GLOBAL ATMO  
 02/10/1999 - 02/14/2000 FY00: \$0 Total: \$50,000  
 Prin. Invest.: D J WUEBBLES  
 Tech. Officer: GSFC/R W STEWART  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8418 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4360**  
 SUPERNOVA FALLBACK AND THE EMERGENCE OF BLACK HOLES AND  
 NEUTRON STARS (ATP 98)  
 03/25/1999 - 04/30/2001 FY00: \$0 Total: \$108,000  
 Prin. Invest.: S L SHAPIRO  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8424 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4361**  
 X-RAY SPECTRA AND VARIABILITY OF ACCRETING NEUTRON STARS-  
 ATP- 98  
 04/15/1999 - 04/14/2000 FY00: \$0 Total: \$96,100  
 Prin. Invest.: F K LAMB  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8479 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4362**  
 EARLY EVOLUTION: THE UNIVERSAL ANCESTOR AND ORIGIN OF MODERN  
 CELL  
 05/04/1999 - 04/30/2001 FY00: \$160,140 Total: \$330,140  
 Prin. Invest.: C WOESE  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8514 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4363**  
 ISAIA: INTEROPERABLE SYSTEMS FOR ARCHIVAL INFORMATION ACCESS  
 06/10/1999 - 05/31/2001 FY00: \$0 Total: \$39,996  
 Prin. Invest.: R PLANTE  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8521 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4364**  
 RADIO INTERFEROMETRIC STUDIES OF COMETS & ASTEROID  
 06/25/1999 - 06/30/2001 FY00: \$30,000 Total: \$60,000  
 Prin. Invest.: L SYNDER  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY



**NAG 5 8555 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4365**  
 MULTISCALE ESTIMATION, ERROR PROPAGATION AND SCALE EFFECTS IN  
 THE DYNAMICAL RESPONSE OF SOIL-MOISTUR  
 06/21/1999 - 06/30/2000 FY00: \$0 Total: \$43,677  
 Prin. Invest.: P KUMAR  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8569 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4366**  
 THE WAVES EXPLORER  
 05/25/1999 - 05/31/2001 FY00: \$332,205 Total: \$800,000  
 Prin. Invest.: G R SWENSON  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8740 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4367**  
 SIMULATION OF TURBULENT MIXING AND PROPAGATION OF NUCLEAR  
 BURNING IN THE SURFACE LAYERS OF ACCRETING  
 08/12/1999 - 07/30/2001 FY00: \$23,000 Total: \$47,000  
 Prin. Invest.: F LAMB  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8781 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4368**  
 INTEGRATED BIOMIMETIC SENSORS USING ARTIFICIAL HAIR CELLS  
 08/27/1999 - 08/31/2001 FY00: \$136,876 Total: \$171,626  
 Prin. Invest.: C LIU  
 Tech. Officer: GSFC/R CROUCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8871 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4369**  
 CORE ANGULAR MOMENTUM & THE IERS COORDINATING CTR/ SUB-CEN-  
 TERS ACTIVITY FOR MONITORING GLOBAL GEOPHY  
 10/19/1999 - 08/31/2001 FY00: \$59,200 Total: \$59,200  
 Prin. Invest.: X SONG  
 Tech. Officer: GSFC/B F CHAO  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9020 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4370**  
 INTERFACES IN N51D - FUSE  
 02/03/2000 - 02/14/2001 FY00: \$36,300 Total: \$36,300  
 Prin. Invest.: Y CHU  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9180 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4371**  
 EVOLUTIONARY MODELS OF COLD, MAGNETIZED, INTERSTELLAR  
 CLOUDS (ATP 99)  
 03/07/2000 - 03/14/2001 FY00: \$51,510 Total: \$51,510  
 Prin. Invest.: C F GAMMIE  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10011 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4372**  
 HOT GAS IN AND AROUND THE SUPERGIANT SHELL LMC-2  
 09/25/2000 - 09/30/2001 FY00: \$33,000 Total: \$33,000  
 Prin. Invest.: Y CHU  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10037 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4373**  
 HOT GAS IN WIND BLOWN BUBBLES  
 09/27/2000 - 09/30/2001 FY00: \$18,000 Total: \$18,000  
 Prin. Invest.: Y CHU  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10042 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4374**  
 NGC 7009: TESTING THE WIND-WIND INTERACTION FORMATION OF  
 PLANETARY NEBULAE  
 09/27/2000 - 09/30/2001 FY00: \$17,000 Total: \$17,000  
 Prin. Invest.: Y CHU  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1249 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4375**  
 ADAPTIVE GRID METHODS FOR PHASE FIELD MODELS OF MICROSTRUC-  
 TURE DEVELOPMENT  
 04/16/1996 - 04/15/2000 FY00: \$52,083 Total: \$490,000  
 Prin. Invest.: J A DANTZIG  
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1376 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4376**  
 R/S "PARTICLE INTERACTION POTENTIALS & PROTEIN CRYSTAL QUALITY  
 UNDER DR. CHARLES F. ZUKOSKI."  
 07/01/1997 - 11/30/2000 FY00: \$125,000 Total: \$446,000  
 Prin. Invest.: C F ZOKOSKI  
 Tech. Officer: MSFC/J R ROGERS, MSFC/J P DOWNEY  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 8 1453 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4377**  
 MODELS OF MAGNETIC DAMPING FOR BRIDGMAN SEMI- CONDUCTOR  
 CRYSTAL GROWTH  
 05/20/1998 - 01/31/2002 FY00: \$100,000 Total: \$263,333  
 Prin. Invest.: J S WALKER  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 13 - PHYSICS

**NAG 8 1471 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4378**  
 COLLOIDAL STABILITY IN COMPLEX FLUIDS  
 04/23/1998 - 01/31/2002 FY00: \$100,000 Total: \$271,333  
 Prin. Invest.: J A LEWIS  
 Tech. Officer: MSFC/P M DOTY  
 CASE Category: 13 - PHYSICS

**NAG 8 1857 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4379**  
 RESEARCH ENTITLED, "PHASE FIELD MODELING OF MICROSTRUCTURE IN  
 MICROGRAVITY  
 06/14/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: J A DANTZIG, N D GOLDEFELD  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1705 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4380**  
 MODELS TO OPTIMIZE THE BENEFITS OF ROTATING MAGNETIC FIELDS  
 FOR SEMICONDUCTOR CRYSTAL GROWTH IN SP  
 06/09/2000 - 11/30/2002 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: J S WALKER  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 1 19950 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4381**  
 SCIENCE SUPPORT TO THE LITE SCIENCE TEAM  
 05/19/1993 - 11/18/1999 FY00: \$0 Total: \$291,137  
*Prin. Invest.:* C S GARDNER  
*Tech. Officer:* LARC/G L MADDREA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 3 97011 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4382**  
 NRA SWITCH FROM GRANT TO CONTRACT-SIMULATION OF ICING CLOUDS  
 ON TEST MODELS  
 02/25/1997 - 08/01/2000 FY00: \$0 Total: \$119,044  
*Prin. Invest.:* E LOTH  
*Tech. Officer:* GRC/T B IRVINE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCA 1 181 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4383**  
 NEW AGATE AGREEMENT  
 04/06/2000 - 09/30/2000 FY00: \$3,000 Total: \$3,000  
*Prin. Invest.:* M BRAGG  
*Tech. Officer:* LARC/T P WARNER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCA 3 110 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4384**  
 JOINT SPONSORED RESEARCH AGREEMENT ICING RESERACH  
 02/22/1996 - 03/31/2000 FY00: \$0 Total: \$209,800  
*Prin. Invest.:* M BRAGG  
*Tech. Officer:* GRC/T H BOND  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 309 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4385**  
 EVAL PEM-TROPICS B OBSERVAT: UNCERTAIN ANALYSES & EFFECTS ON  
 DEEP CONVECTIVE MIX'G ON TROPOSPH CHEM  
 07/22/1998 - 07/31/2001 FY00: \$32,368 Total: \$108,368  
*Prin. Invest.:* D WUEBBLER, D WUEBBLES  
*Tech. Officer:* LARC/J L RAPER, LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 3 509 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4386**  
 THE EFFECT OF THE CRITICAL ICE ACCRETION ON AIRFOI L & WING  
 PERFORMANCE  
 10/25/1996 - 10/24/2000 FY00: \$0 Total: \$144,574  
*Prin. Invest.:* M S SELIG, M B BRAGG  
*Tech. Officer:* GRC/H E ADDY, JR.  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 3 780 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4387**  
 MICROSTRIP ANTENNAS WITH BROADBAND INTEGRATED PHAS E  
 SHIFTING  
 03/09/2000 - 02/28/2001 FY00: \$19,536 Total: \$19,536  
*Prin. Invest.:* D BERNHARD  
*Tech. Officer:* GRC/R R ROMANOFSKY  
*CASE Category:* 45 - ELECTRICAL ENGR

**NCC 5 153 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4388**  
 GRAND CHALLENGE RESEARCH  
 08/30/1996 - 06/30/2000 FY00: \$0 Total: \$1,350,000  
*Prin. Invest.:* P SAYLOR  
*Tech. Officer:* GSFC/J R FISCHER  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NGT 2 52229 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4389**  
 OPTIMUM FORMULATIONS FOR LES  
 08/18/1997 - 06/30/2000 FY00: \$0 Total: \$68,000  
*Prin. Invest.:* R D MOSER  
*Tech. Officer:* ARC/A A WRAY  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 2 52244 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4390**  
 NON-LINEAR ALFVEN WAVES, AMBIPOLAR DIFFUSION & STA R FORMATION  
 08/05/1998 - 08/31/2001 FY00: \$22,000 Total: \$68,000  
*Prin. Invest.:* T MOUSCHOVIAS  
*Tech. Officer:* ARC/A BARNES  
*CASE Category:* 11 - ASTRONOMY

**NGT 2 52271 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4391**  
 FUNCTIONALLY GRADED MATERIAL APPLICATIONS TO ADVAN CE  
 THERMAL PROTECTION SYSTEMS  
 09/14/2000 - 09/14/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* G H PAULINO *Prin. Invest.:* NONE  
*Tech. Officer:* ARC/T L PANONTIN  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NGT 3 52345 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4392**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 07/28/1998 - 08/20/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* J S MOORE  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 43 - CHEMICAL ENGR

**NGT 3 52357 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4393**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT  
 RESEARCH PROGRAM  
 07/15/1999 - 09/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* M BRAGGS  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 5 14 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4394**  
 NARROW-BAND SURFACE PHOTOMETRY OF GALAXIES  
 07/15/1996 - 06/30/1999 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* L A THOMPSON  
*Tech. Officer:* GSFC/G A SOFFEN, GSFC/B WOODGATE  
*CASE Category:* 11 - ASTRONOMY

**NGT 5 73 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4395**  
 CONTINUATION OF GSRP GRANT ON "HIGH POWER DIAL LID AR FOR THE  
 REMOTE SENSING OF WATER VAPOR ON E  
 06/05/1998 - 07/14/1999 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* G C PAPEN  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 45 - ELECTRICAL ENGR

**NGT 5 84 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4396**  
 NEW GRANT FOR GSRP STUDENT - DANIEL BULLOK  
 05/18/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* P SAYLOR  
*Tech. Officer:* GSFC/G A SOFFEN  
*CASE Category:* 22 - COMPUTER SCIENCE

**NGT 5 30041 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4397**  
 CHARACTERIZING CLIMATIC SIGNATURES IN HYDRO-GEOMOR  
 10/17/1996 - 08/31/1999 FY00: \$0 Total: \$86,000  
 Prin. Invest.: P KUMAR  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40030 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4398**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 12/19/1996 - 01/31/2001 FY00: \$475,000 Total: \$1,829,881  
 Prin. Invest.: W C SOLOMON  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50228 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4399**  
 SOFTWARE-IMPLEMENTED ADAPTIVE FAULT TOLERANCE THRO UGH  
 DYNAMICALLY RECONFIGURABLE AGENTS  
 10/29/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: R K IYER  
 Tech. Officer: HQ/S MCGEE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50238 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4400**  
 CAPILLARY ELECTROKINETIC TRANSPORT FOR CONVEYING SAMPLE TO  
 ANALYTICAL INSTRUMENTATION: DESIGN, DEV  
 05/28/1999 - 06/30/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: A SCHEELINE, NONE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50326 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4401**  
 BIOGEOCHEMICAL CYCLES & CLIMATE CHANGE; POTENTIAL FEEDBACKS  
 & INTERACTIONS/STUDENT: VAISHALI NAIK  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D WUEBBLES  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 9 33 UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN 4402**  
 TRAINING GRANT  
 06/04/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: S R WHITE  
 Tech. Officer: JSC/D G SICKOREZ  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 8 1207 WESTERN ILLINOIS UNIVERSITY 4403**  
 JOVE  
 09/25/1995 - 05/31/1999 FY00: -\$374 Total: \$30,130  
 Prin. Invest.: L H TICHENOR  
 Tech. Officer: MSFC/D SIX  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1611 WESTERN ILLINOIS UNIVERSITY 4404**  
 R/S CONSTRUCTING THE COMPRE MODEL: A COST GROWTH APPROACH  
 05/13/1999 - 05/13/2000 FY00: -\$6 Total: \$18,434  
 Prin. Invest.: T LEE  
 Tech. Officer: MSFC/L D THOMAS  
 CASE Category: 21 - MATHEMATICS

## INDIANA

**NAG 3 2207 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4405**  
 LOW-EMISSION SELF-COOLED COMBUSTION WAVE ROTOR LOW-EMIS-  
 SION SELF-COOLED COMBUSTION WAVE ROTOR  
 11/13/1998 - 11/06/2000 FY00: \$0 Total: \$53,078  
 Prin. Invest.: R NALIM  
 Tech. Officer: GRC/D E PAXON  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2260 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4406**  
 IMPLEMENTATION OF LOAD BALANCING TECHNIQUES FOR PA RALLEL  
 COMPUTATIONS WITH DISTRIBUTED SYSTEMS  
 04/20/1999 - 04/03/2001 FY00: \$79,278 Total: \$149,278  
 Prin. Invest.: A ECER  
 Tech. Officer: GRC/T BABRAUCKAS  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 3 2325 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4407**  
 WAVE FAN AND HYBRID PULSE DETONATION ENGINE WAVE FAN AND  
 HYBRID PULSE DETONATION ENGINE  
 02/03/2000 - 10/15/2000 FY00: \$61,426 Total: \$61,426  
 Prin. Invest.: D NALIM Prin. Invest.: NONE  
 Tech. Officer: GRC/G E WELSH  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2399 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4408**  
 NEW COMPUTATIONAL METHOD FOR MASSIVELY PARALLEL CO MPUTA-  
 TIONAL FLUID DYNAMICS  
 04/19/2000 - 04/03/2001 FY00: \$93,797 Total: \$93,797  
 Prin. Invest.: D HSU  
 Tech. Officer: GRC/M LIU  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1586 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4409**  
 SELF RENEWAL REPLICATION OF HEMATOPOIETIC STEM CELLS IN  
 MICROGRAVITY  
 03/01/1999 - 11/30/2002 FY00: \$170,000 Total: \$300,000  
 Prin. Invest.: C M TRAYCOFF  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 5 50203 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4410**  
 PARATHYROID HORMONE MODULATES THE RESPONSE OF OSTE OBLAST-  
 LIKE CELLS TO MECHANICAL STIMULATION  
 07/01/1998 - 06/30/2001 FY00: \$0 Total: \$39,600  
 Prin. Invest.: R L DUCN  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 5 50291 INDIANA UNIV.-PURDUE U. AT INDIANAPOLIS 4411**  
 EFFECTS OF INTEGRIN-EXTRACELLULAR MATRIX ADHESION IN FLUID  
 SHEAR-INDUCED PROSTAGLAND IN METABOLISM  
 07/08/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: F PAVALKO, NONE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 59 - LIFE SCIENCE, OTHER

<p><b>NAG 5 4295</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4412</b>            3D SIMULATIONS OF GRAVITATIONAL INSTABILITIES IN P PROTOSTELLAR DISKS            04/04/1997 - 06/30/2001      FY00: \$45,000      Total: \$130,000  <i>Prin. Invest.:</i> D H DURISEN  <i>Tech. Officer:</i> GSFC/J BOYCE            CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7491</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4420</b>            XTE PROPOSAL (30011) - COORDINATED X-RAY/OPTICAL OBSERVATIONS OF ECCLIPSING AM HERCULUS OBJECT            06/29/1998 - 06/30/2000      FY00: \$0      Total: \$10,234  <i>Prin. Invest.:</i> T STEIMAN-CAMERON  <i>Tech. Officer:</i> GSFC/J SWANK            CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 4342</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4413</b>            SIMULATIONS OF BALLISTIC TRANSPORT IN SATURN'S RING            04/21/1997 - 12/31/1999      FY00: \$0      Total: \$51,994  <i>Prin. Invest.:</i> D H DURISEN  <i>Tech. Officer:</i> GSFC/P ROGERS            CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p><b>NAG 5 7514</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4421</b>            SIMULATIONS OF INSTABILITIES IN PROTOSTELLAR DISKS AND OTHER STARFORMATION STUDIES            05/29/1998 - 06/30/1999      FY00: -\$445      Total: \$44,555  <i>Prin. Invest.:</i> D DURISEN  <i>Tech. Officer:</i> HQ/J BOYCE            CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 4618</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4414</b>            PETROLOGIC EVOLUTION OF LUNAR AND METEORITE PARENT            05/19/1997 - 02/29/2000      FY00: \$0      Total: \$90,000  <i>Prin. Invest.:</i> D BASU  <i>Tech. Officer:</i> GSFC/D NAVA            CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7619</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4422</b>            FUNDING FOR "LITHOSPHERIC RHEOLOGY AND GEODYNAMIC PROCESSES FROM INTEGRATION OF GEODETIC, GRAVITY AND            07/24/1998 - 09/30/2000      FY00: \$25,000      Total: \$100,000  <i>Prin. Invest.:</i> M W HAMBURGER, NONE  <i>Tech. Officer:</i> GSFC/H V FREY            CASE Category: 32 - GEOLOGICAL SCIENCE</p>
<p><b>NAG 5 5167</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4415</b>            GPS MEASUREMENTS OF LOCALIZED DEFORMATION IN THE T            07/17/1997 - 07/14/2001      FY00: \$15,000      Total: \$81,000  <i>Prin. Invest.:</i> M W HAMBURGER  <i>Tech. Officer:</i> GSFC/H V FREY            CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p><b>NAG 5 8582</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4423</b>            GPS MEASUREMENT OF CRUSTAL DEFORMATION AT TAAL VOLCANO, PHILIPPINES            06/08/1999 - 12/14/2000      FY00: \$0      Total: \$20,000  <i>Prin. Invest.:</i> M W HAMBURGER  <i>Tech. Officer:</i> GSFC/H V FREY            CASE Category: 32 - GEOLOGICAL SCIENCE</p>
<p><b>NAG 5 5194</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4416</b>            TECHNOLOGY DEVELOPMENT FOR HIGH-RESOLUTION GAMMA-RAY SPECTROSCOPY            05/19/1998 - 04/30/2000      FY00: \$0      Total: \$50,000  <i>Prin. Invest.:</i> R E PEHL  <i>Tech. Officer:</i> GSFC/B A MERRITT            CASE Category: 13 - PHYSICS</p>	<p><b>NAG 5 9236</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4424</b>            FUSE OBSERVATIONS OF GALACTIC AND LMC NOVAE IN OUTBURST - FUSE            03/09/2000 - 03/14/2001      FY00: \$27,330      Total: \$27,330  <i>Prin. Invest.:</i> S SHORE  <i>Tech. Officer:</i> GSFC/G SONNEBORN            CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 5224</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4417</b>            HEAT HIGH ENERGY ANTIMATTER TELESCOPE PI PROF. JAMES MUSSER            02/03/1999 - 02/02/2002      FY00: \$151,200      Total: \$319,200  <i>Prin. Invest.:</i> J MUSSER  <i>Tech. Officer:</i> WFF/B MERRITT            CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 9369</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4425</b>            PETROLOGIC EVOLUTION OF LUNAR AND METEORITE PARENT BODY REGOLITH            04/03/2000 - 03/31/2001      FY00: \$14,000      Total: \$14,000  <i>Prin. Invest.:</i> A BASU  <i>Tech. Officer:</i> GSFC/J BOYCE            CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 6773</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4418</b>            COBE AND THE STRUCTURE OF THE GALACTIC INTERSTELLAR MEDIUM            01/22/1998 - 01/31/2001      FY00: \$43,700      Total: \$125,600  <i>Prin. Invest.:</i> STEIMAN-CAMERON  <i>Tech. Officer:</i> GSFC/D WEST            CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 9852</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4426</b>            MEETING IN THE MIDDLE: THE CHALLENGE OF MESO-LEVEL INTEGRATION            08/07/2000 - 07/31/2001      FY00: \$16,000      Total: \$16,000  <i>Prin. Invest.:</i> E F MORAN, NONE  <i>Tech. Officer:</i> GSFC/G GUTMAN            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 6884</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4419</b>            MONITORING THE ACCRETION OF TWO OLD NOVAE            02/06/1998 - 01/31/2000      FY00: \$0      Total: \$10,000  <i>Prin. Invest.:</i> K HONEYCUTT  <i>Tech. Officer:</i> GSFC/J SWANK            CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 98121</b>      <b>INDIANA UNIVERSITY - BLOOMINGTON</b>      <b>4427</b>            RADIATION TESTING &amp; ANALYTICAL SUPPORT SERVICES            09/03/1998 - 09/02/2000      FY00: \$30,350      Total: \$150,250  <i>Prin. Invest.:</i> C FOSTER  <i>Tech. Officer:</i> JSC/W CULPEPPER            CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>

**NCC 2 1035** **INDIANA UNIVERSITY - BLOOMINGTON** **4428**  
CASE-BASED CAPTURE & REUSE OF AEROSPACE DESIGN RATIONALE  
05/07/1998 - 07/31/2001 FY00: \$92,000 Total: \$392,092  
Prin. Invest.: D B LEAKE  
Tech. Officer: ARC/M E LIVINGSTON, ARC/W VAN DALSEM  
CASE Category: 22 - COMPUTER SCIENCE

**NCC 5 334** **INDIANA UNIVERSITY - BLOOMINGTON** **4429**  
HUMAN AND PHYSICAL DIMENSIONS OF LAND USE/COVER CHANGE IN ANAZONIA: FOREST REGENERATION AND LANDSCAPE  
06/16/1998 - 12/31/2000 FY00: \$223,725 Total: \$481,839  
Prin. Invest.: E MORAN  
Tech. Officer: GSFC/D DEERING  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 3 601** **MANCHESTER COLLEGE** **4430**  
INTERCALATION OF GRAPHITE FIBERS FOR SPACE POWER APPLICATIONS  
03/12/1998 - 12/23/1999 FY00: \$0 Total: \$21,873  
Prin. Invest.: G W CLARK  
Tech. Officer: GRC/C C HUNG  
CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 1 2109** **PURDUE UNIVERSITY** **4431**  
LASER SPOT HEATING SYSTEM FOR TRANSITION DETECTION IN CRYOGENIC WIND TUNNELS  
09/14/1998 - 06/30/2000 FY00: \$0 Total: \$100,000  
Prin. Invest.: J P SULLIVAN  
Tech. Officer: LARC/B T UPCHURCH, LARC/C J OBARA  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2119** **PURDUE UNIVERSITY** **4432**  
GENETIC ALGORITHM APPROACHES FOR ACTUATOR PLACEMENT  
12/09/1998 - 06/30/2000 FY00: \$0 Total: \$20,581  
Prin. Invest.: W A CROSSLEY  
Tech. Officer: LARC/S L PADULA  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2262** **PURDUE UNIVERSITY** **4433**  
ACTUATOR PLACEMENT VIA GENETIC ALGORITHM FOR AIRCRAFT MORPHING  
01/19/2000 - 12/31/2000 FY00: \$30,000 Total: \$30,000  
Prin. Invest.: W A CROSSLEY  
Tech. Officer: LARC/S L PADULA, LARC/J L ROGERS  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1344** **PURDUE UNIVERSITY** **4434**  
A GRAVIRESPONSIVE TIME-KEEPING PROTEIN OF THE PLANT & ANIMAL CELL SURFACE  
07/21/1999 - 12/31/2000 FY00: \$186,346 Total: \$258,392  
Prin. Invest.: D J MORRE  
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1389** **PURDUE UNIVERSITY** **4435**  
ELUCIDATING THE MECHANISM OF MECHANICAL-STRESS INHIBITION OF PLANT GROWTH  
12/21/1999 - 06/30/2001 FY00: \$21,407 Total: \$21,407  
Prin. Invest.: C MITCHELL  
Tech. Officer: ARC/R MACELROY  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1403** **PURDUE UNIVERSITY** **4436**  
AERODYNAMIC SHAPE AND STRUCTURAL TOPOLOGY DESIGN OF ROTOR CROSS SECTIONS USING A GENETIC ALGORITHM  
04/20/2000 - 06/30/2001 FY00: \$29,999 Total: \$29,999  
Prin. Invest.: W A CROSSLEY  
Tech. Officer: ARC/S B KOTTAPALLI  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 1730** **PURDUE UNIVERSITY** **4437**  
3-D UNSTEADY AERODYNAMICS AND AEROELASTICITY OF ADVANCED TURBOPROPS  
02/01/1995 - 02/28/2001 FY00: \$81,002 Total: \$500,035  
Prin. Invest.: S FLEETER  
Tech. Officer: GRC/D H BUFFUM  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 1766** **PURDUE UNIVERSITY** **4438**  
HIGH REYNOLDS NUMBER EXPERIMENTS ON BYPASS DUCT AND STRICT FLOWS  
07/14/1995 - 10/31/1999 FY00: \$0 Total: \$288,441  
Prin. Invest.: S H COLLICOTT, J P SULLIVAN  
Tech. Officer: GRC/K J KACZYNSKI  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 1860** **PURDUE UNIVERSITY** **4439**  
FORCED OSCILLATIONS OF PENDANT AND SESSILE DROPS  
06/03/1996 - 06/02/2000 FY00: \$29,000 Total: \$280,000  
Prin. Invest.: D A BASARAN  
Tech. Officer: GRC/J S LING, GRC/B S SINGH  
CASE Category: 13 - PHYSICS

**NAG 3 2080** **PURDUE UNIVERSITY** **4440**  
AEROSPACE STRUCTURAL METALS HANDBOOK  
10/28/1997 - 09/30/1999 FY00: -\$81 Total: \$51,841  
Prin. Invest.: H MINDLIN  
Tech. Officer: GRC/J R REAGAN  
CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2095** **PURDUE UNIVERSITY** **4441**  
ON THE DEVELOPMENT OF SUPERSONIC JET NOISE PREDICTION METHODOLOGY  
12/22/1997 - 11/24/2000 FY00: \$36,081 Total: \$104,186  
Prin. Invest.: A S LYRINTZIS  
Tech. Officer: GRC/J R SCOTT  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2107** **PURDUE UNIVERSITY** **4442**  
SCRAMJET SCALING BASED ON ENERGY ANALYSIS SCRAMJET SCALING BASED ON ENERGY ANALYSIS  
01/28/1998 - 12/04/1998 FY00: -\$669 Total: \$51,940  
Prin. Invest.: S B MUTHY  
Tech. Officer: GRC/S R THOMAS  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2169** **PURDUE UNIVERSITY** **4443**  
FORCED RESPONSE PREDICTIONS OF TURBOMACHINERY BLADE ROWS  
05/29/1998 - 08/01/2000 FY00: \$17,491 Total: \$62,732  
Prin. Invest.: S FLEETER  
Tech. Officer: GRC/D C JANETZKE  
CASE Category: 41 - AERONAUTICAL ENGR

<p><b>NAG 3 2217</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4444</b>  SCRAMJET SCALING AND INTERACTIONS TESTING SCRAMJET SCALING AND  INTERACTIONS TESTING  12/15/1998 - 12/07/2000                      FY00: \$99,213                      Total: \$191,080  Prin. Invest.: S MURTHY  Tech. Officer: GRC/S R THOMAS  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 3965</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4451</b>  STUDY ON APPLICATIONS OF SATELLITE DATA TO UNDERST SEA INTER-  ACTIONS  03/03/1997 - 07/31/2000                      FY00: \$0                      Total: \$266,112  Prin. Invest.: C A CLAYSON  Tech. Officer: GSFC/R KAKAR  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 3 2246</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4445</b>  THE 14TH SYMPOSIUM ON AIR BREATHING ENGINES THE 14TH SYMPO-  SIUM ON AIR BREATHING ENGINES  03/22/1999 - 09/30/2000                      FY00: \$0                      Total: \$5,100  Prin. Invest.: S MURTHY  Tech. Officer: GRC/M THARP  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 3975</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4452</b>  RESEARCH ON METHODS FOR ANALYSIS OF MULTI-SPECTRAL DATA  02/26/1997 - 01/31/2000                      FY00: \$0                      Total: \$535,680  Prin. Invest.: D A LANGREBE  Tech. Officer: GSFC/D E WICKLAND  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 3 2251</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4446</b>  INVESTIGATION OF NITRIC OXIDE PRODUCTION IN HIGH-P RESSURE  COUNTERFLOW DIFFUSION FLAMES BY LASER-IND  03/31/1999 - 09/05/1999                      FY00: -\$144                      Total: \$29,856  Prin. Invest.: N M LAURENDEAU  Tech. Officer: GRC/Y HICKS  CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NAG 5 3992</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4453</b>  THE ANALYSIS AND PARAMETERIZATION OF SHORTWAVE RAD  ATMOSPHERES  02/26/1997 - 05/31/2001                      FY00: \$26,000                      Total: \$296,000  Prin. Invest.: D HARSHVARDHAN  Tech. Officer: GSFC/K H BERGMAN  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 3 2336</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4447</b>  INVESTIGATION OF CRITICAL HEAT FLUX IN REDUCED GRA VITY USING  PHOTOMICROGRAPHIC TECHNIQUES  02/22/2000 - 11/30/2003                      FY00: \$40,000                      Total: \$40,000  Prin. Invest.: I MUDAWAR  Tech. Officer: GRC/M HANSAN  CASE Category: 49 - ENGINEERING, OTHER</p>	<p><b>NAG 5 4304</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4454</b>  CHEMICAL STUDIES OF METEORITES  04/14/1997 - 02/28/2001                      FY00: \$79,000                      Total: \$330,000  Prin. Invest.: D E LIPSCHUTZ  Tech. Officer: GSFC/D NAVA  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 3 2413</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4448</b>  MHD BYPASS ENERGY CYCLE FOR JET ENGINE MHD BYPASS ENERGY  CYCLE FOR JET ENGINE  06/28/2000 - 05/31/2001                      FY00: \$30,000                      Total: \$30,000  Prin. Invest.: S MURTHY  Tech. Officer: GRC/I BLANKSON  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 4819</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4455</b>  LABORATORY STUDIES OF DIACETYLENE PHOTOCHEMISTRY:R ULES IN  TITAN AND THE OUTER PLANETS' ATOMSPHERE  06/17/1997 - 05/31/1999                      FY00: -\$15,859                      Total: \$152,141  Prin. Invest.: D ZWIER  Tech. Officer: GSFC/D BOGAN  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 3 2453</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4449</b>  TECHNICAL SUPPORT FOR THE PUBLICATION OF THE AEROS PACE  STRUCTURAL METALS HANDBOOK #ODF01  06/07/2000 - 03/31/2001                      FY00: \$10,000                      Total: \$10,000  Prin. Invest.: C GIBSON  Tech. Officer: GRC/J REAGAN  CASE Category: 47 - METAL &amp; MATERIALS ENGR</p>	<p><b>NAG 5 6918</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4456</b>  XTE PROPOSAL - MAPPING THE ORBITS OF ECLIPSING HIG H MASS  SYSTEMS  02/06/1998 - 01/31/2000                      FY00: \$0                      Total: \$17,038  Prin. Invest.: J P FINLEY  Tech. Officer: GSFC/J SWANK  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 3426</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4450</b>  STRUCTURE IN THE DIFFUSE X-RAY BACKGROUND ALONG TH  09/30/1996 - 09/30/1999                      FY00: -\$16                      Total: \$44,281  Prin. Invest.: J P FINLEY  Tech. Officer: GSFC/D K WEST  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 6971</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4457</b>  MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICAT IONS FROM  MULTISENSOR AND MULTITEMPORAL DATA  03/12/1998 - 02/28/2001                      FY00: \$28,141                      Total: \$81,113  Prin. Invest.: C E BRODLEY  Tech. Officer: GSFC/D E WICKLAND  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 7387</b>                      <b>PURDUE UNIVERSITY</b>                      <b>4458</b>  A SEARCH FOR PULSATIONS IN HMXB SYSTEMS  05/07/1998 - 05/31/2000                      FY00: \$0                      Total: \$9,167  Prin. Invest.: J P FINLEY  Tech. Officer: GSFC/J SWANK  CASE Category: 11 - ASTRONOMY</p>	

**NAG 5 7388** **PURDUE UNIVERSITY** **4459**  
 THE ORBITAL DECAY RTAE AND SYSTEM PARAMETERS OF 4U 1700-37  
 05/07/1998 - 05/31/2000 FY00: \$0 Total: \$8,500  
 Prin. Invest.: J P FINLEY  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7954** **PURDUE UNIVERSITY** **4460**  
 INCREASING PUBLIC BENEFITS OF EXISTING NASA EARTH SCIENCES  
 DATA: MULTI-PURPOSE APPLICATIONS IN AN  
 12/31/1998 - 10/31/2000 FY00: \$60,000 Total: \$160,000  
 Prin. Invest.: B A ENGEL  
 Tech. Officer: GSFC/A TUYAHOV  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8155** **PURDUE UNIVERSITY** **4461**  
 LABORATORY STUDIES OF DIACETYLENE AND CYANOACETYLENE  
 PHOTOCHEMISTRY: ROUTES TO COMPLEX MOLECULES  
 02/17/1999 - 05/31/2001 FY00: \$87,606 Total: \$228,406  
 Prin. Invest.: T ZWIER  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9098** **PURDUE UNIVERSITY** **4462**  
 LONG-TERM X-RAY VARIABILITY OF CYG X-1: ORBITAL MODULATION,  
 INTENSITY DIPS, FLARES, STATE TRANSIT  
 02/18/2000 - 02/28/2001 FY00: \$19,999 Total: \$19,999  
 Prin. Invest.: W CUI  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9822** **PURDUE UNIVERSITY** **4463**  
 A COMPARISON OF THE IMPACT OF PRECIPITATION ON THE TROPICAL  
 PACIFIC & NORTH INDIAN OCEAN MIXED LAYER  
 07/24/2000 - 11/30/2000 FY00: \$22,694 Total: \$22,694  
 Prin. Invest.: C A CLAYTON  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1147** **PURDUE UNIVERSITY** **4464**  
 BIOLOGICAL PARTICLE SEPARATION IN LOW GRAVITY  
 08/03/1995 - 08/02/2000 FY00: \$0 Total: \$536,214  
 Prin. Invest.: J MORRE  
 Tech. Officer: MSFC/L KARR  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1233** **PURDUE UNIVERSITY** **4465**  
 RESEARCH "DEVELOPMENT OF ATMOSPHERIC PHYSICAL RET. USING  
 SATELLITE DATA FROM MICROWAVE SOUNDING, ETC  
 12/04/1996 - 01/20/2001 FY00: \$55,000 Total: \$198,156  
 Prin. Invest.: G W PETTY  
 Tech. Officer: MSFC/B L APENTA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1515** **PURDUE UNIVERSITY** **4466**  
 VARIABILITY AND PREDICTABILITY OF LAND-ATMOSPHERE INTERACTIONS:  
 OBSERVATIONAL AND MODELING STUDIES  
 05/15/1996 - 05/31/2001 FY00: \$58,405 Total: \$168,057  
 Prin. Invest.: R OGLESBY  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 8 1691** **PURDUE UNIVERSITY** **4467**  
 EXPERIMENTAL AND NUMERICAL INVESTIGATIONS OF GROWTH  
 MORPHOLOGIES OF PERITECTIC REACTIONS  
 06/01/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: D JOHNSON  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG13 38** **PURDUE UNIVERSITY** **4468**  
 EVALUATING REMOTELY SENSED DATA FOR AGRICULTURAL AND NATURAL  
 RESOURCE APPLICATIONS  
 08/16/1996 - 11/19/1999 FY00: -\$275 Total: \$655,607  
 Prin. Invest.: C J JOHANNSEN  
 Tech. Officer: SSC/J JENNER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG13 00001** **PURDUE UNIVERSITY** **4469**  
 EVALUATING REMOTE SENSING TECHNOLOGY FOR SITE SPECIFIC AGRICULTURE  
 AND NATIONAL RESOURCES  
 02/18/2000 - 02/17/2001 FY00: \$199,239 Total: \$199,239  
 Prin. Invest.: C J JOHANNSEN  
 Tech. Officer: SSC/R MCKELLIP  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 5208** **PURDUE UNIVERSITY** **4470**  
 PRESSURE AND TEMPERATURE SENSITIVE PAINT MEASUREMENTS ON  
 ROTORS  
 04/02/1997 - 04/30/1999 FY00: -\$2 Total: \$39,998  
 Prin. Invest.: J P SULLIVAN  
 Tech. Officer: ARC/C TUNG  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 5 358** **PURDUE UNIVERSITY** **4471**  
 DYNAMICAL SYSTEMS THEORY, NUMERICAL METHODS, OPTIMIZATION  
 STRATEGIES & THEIR APPLICATION TO TRAJEC  
 08/26/1998 - 07/31/2001 FY00: \$119,000 Total: \$278,189  
 Prin. Invest.: K C HOWELL  
 Tech. Officer: GSFC/D FOLTA  
 CASE Category: 99 - MULTIDISCIPL, OTHER

**NGT 1 52198** **PURDUE UNIVERSITY** **4472**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 07/08/1998 - 06/30/2001 FY00: \$22,000 Total: \$54,000  
 Prin. Invest.: G L ROTH  
 Tech. Officer: LARC/D W BARTLETT  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 2 52225** **PURDUE UNIVERSITY** **4473**  
 TOPOLOGY DESIGN OF ROTOR BLADES FOR AERODYNAMICS & STRUCTURAL  
 CONSIDERATIONS  
 07/29/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: W A CROSSLEY  
 Tech. Officer: ARC/S R KOTTAPALLI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 28** **PURDUE UNIVERSITY** **4474**  
 TRAJECTORY DESIGN STRATEGIES FOR LIBRAITON POINT MANIFESTATIONS  
 THAT INCORPORATE INVARIANT MANIFOLDS  
 07/13/1996 - 09/30/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: K C HOWELL  
 Tech. Officer: GSFC/G A SOFFEN, GSFC/J COOLEY  
 CASE Category: 42 - AERONAUTICAL ENGR

**NGT 5 30040 PURDUE UNIVERSITY 4475**  
 EFFECT OF ANTHROPOGENIC AEROSOL ON CLOUD OPTICAL PROPERTIES: A CASE STUDY OF THE EASTERN U.S.  
 10/17/1996 - 02/28/2001 FY00: \$0 Total: \$88,000  
 Prin. Invest.: D HARSHVARDHAN  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 30163 PURDUE UNIVERSITY 4476**  
 DEVELOPMENT, EVALUATION, AND APPLICATION OF A FAST TIME RESPONSE MASS SPECTROMETRIC METHOD FOR QU  
 08/31/1998 - 08/31/2001 FY00: \$21,600 Total: \$65,600  
 Prin. Invest.: P B SHEPSON, BARKET  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40043 PURDUE UNIVERSITY 4477**  
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PR  
 01/30/1997 - 02/28/2001 FY00: \$256,250 Total: \$973,750  
 Prin. Invest.: D ANDRISANI  
 Tech. Officer: GSFC/L KEEFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50110 PURDUE UNIVERSITY 4478**  
 GRADUATE STUDENT RESEARCHERS PROGRAM - STUDENT: R  
 09/11/1997 - 08/14/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: J LONGUSKI  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50130 PURDUE UNIVERSITY 4479**  
 SEARCH FOR A SPECTROSCOPIC SIGNATURE OF TRIPLET ME  
 09/10/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: T ZWIER  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50222 PURDUE UNIVERSITY 4480**  
 MODELING MULTITHREADING ON MIMD COMPUTERS  
 09/25/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: L H JAMIESON, TEANY  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 50275 PURDUE UNIVERSITY 4481**  
 LOW-THRUST GRAVITY-ASSIST TRAJECTORY DESIGN STUDENT: THERESA J. DEBBAN  
 06/20/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J M LONGUSKI  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 5184 TAYLOR UNIVERSITY 4482**  
 DROPPS: THE DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER MESOSPHERE USING COORDINATED ROCK  
 03/13/1998 - 03/15/2001 FY00: \$36,406 Total: \$172,075  
 Prin. Invest.: H D VOSS  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 8077 TAYLOR UNIVERSITY 4483**  
 SOURCE-LOSS/CONE INVESTIGATION  
 01/20/1999 - 01/31/2001 FY00: \$30,000 Total: \$99,994  
 Prin. Invest.: H D VOSS  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 1 1987 UNIVERSITY OF NOTRE DAME 4484**  
 WAKE DEVELOPMENT AND STRUCTURE IN ADVERSE PRESSURE GRADIENT  
 01/05/1998 - 06/30/1999 FY00: -\$1 Total: \$50,371  
 Prin. Invest.: F O THOMAS, R C NELSON  
 Tech. Officer: LARC/J B ANDERS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2179 UNIVERSITY OF NOTRE DAME 4485**  
 WAKE DEVELOPMENT AND STRUCTURE IN ADVERSE PRESSURE GRADIENT  
 04/06/1999 - 06/30/2000 FY00: \$0 Total: \$56,154  
 Prin. Invest.: F O THOMAS, R C NELSON  
 Tech. Officer: LARC/J B ANDERS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2214 UNIVERSITY OF NOTRE DAME 4486**  
 COLLAPSE OF CRACKED RECTANGULAR PLATES UNDER BI-AXIAL LOADING  
 07/21/1999 - 07/11/2000 FY00: \$0 Total: \$21,216  
 Prin. Invest.: E CORONA  
 Tech. Officer: LARC/J H STARNES, JR., LARC/R D YOUNG  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2240 UNIVERSITY OF NOTRE DAME 4487**  
 ADVANCED INFO TECHNOLOGY IN SIMULATION BASED LIFE CYCLE DESIGN UNDER UNCERTAINTY - NRA-98-LARC-8  
 09/20/1999 - 09/30/2002 FY00: \$55,629 Total: \$78,032  
 Prin. Invest.: J E RENAUD  
 Tech. Officer: LARC/J L ROSEY  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 1 2264 UNIVERSITY OF NOTRE DAME 4488**  
 FREE-STREAM TURBULENCE LEVEL MEASUREMENTS  
 01/24/2000 - 08/31/2000 FY00: \$59,645 Total: \$59,645  
 Prin. Invest.: T C CORKE  
 Tech. Officer: LARC/K D WRIGHT  
 CASE Category: 13 - PHYSICS

**NAG 3 2213 UNIVERSITY OF NOTRE DAME 4489**  
 MECHANISTIC STUDIES OF COMBUSTION AND STRUCTURE FORMATION DURING SYNTHESIS OF ADVANCED MATERIALS  
 01/15/1999 - 11/17/2002 FY00: \$95,000 Total: \$177,500  
 Prin. Invest.: A VARMA  
 Tech. Officer: GRC/R FRIEDMAN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2366 UNIVERSITY OF NOTRE DAME 4490**  
 DIFFUSIVE COARSENING OF LIQUID FOAMS IN MICROGRAVITY  
 03/28/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D A GLAZIER  
 Tech. Officer: GRC/F P CHIARMONTE  
 CASE Category: 49 - ENGINEERING, OTHER



**NAG 3 2384 UNIVERSITY OF NOTRE DAME 4491**  
 EXPERIMENTAL AND THEORETICAL STUDIES OF WET GRANULAR MEDIA  
 04/06/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D BARBASI  
 Tech. Officer: GRC/J H AGUI  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2418 UNIVERSITY OF NOTRE DAME 4492**  
 NASA GRADUATE STUDENT DOCTORAL BUDGET PROJECT NASA GRADUATE STUDENT DOCTORAL BUDGET PROJECT  
 05/09/2000 - 12/01/2001 FY00: \$252,500 Total: \$252,500  
 Prin. Invest.: S JOHNSON  
 Tech. Officer: GRC/R LAWRENCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 4 123 UNIVERSITY OF NOTRE DAME 4493**  
 A HIGH-LIFT FLOW PHYSICS EXPERIMENT USING THE NASA DRYDEN FLIGHT TEST FIXTURE  
 04/14/1997 - 01/30/2000 FY00: \$0 Total: \$120,650  
 Prin. Invest.: R NELSON, F THOMAS  
 Tech. Officer: DFRC/D FISHER  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 4 206 UNIVERSITY OF NOTRE DAME 4494**  
 AN EXPERIMENTAL STUDY OF BOUNDARY LAYER RELAMINARIZATION  
 05/15/2000 - 09/30/2001 FY00: \$20,025 Total: \$20,025  
 Prin. Invest.: D O THOMAS  
 Tech. Officer: DFRC/D FISHER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 4573 UNIVERSITY OF NOTRE DAME 4495**  
 DETECTION OF EXTRA-SOLAR PLANETS VIA GRAVITATIONAL  
 09/05/1997 - 07/14/2001 FY00: \$0 Total: \$140,000  
 Prin. Invest.: D BENNETT  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8099 UNIVERSITY OF NOTRE DAME 4496**  
 GEOCHEMICAL EVOLUTION OF THE MOON  
 02/03/1999 - 02/14/2001 FY00: \$39,000 Total: \$79,000  
 Prin. Invest.: D R NEAL  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8355 UNIVERSITY OF NOTRE DAME 4497**  
 ERROR CONTROL CODING TECHNIQUES FOR SPACE AND SATELLITE COMMUNICATIONS; GSFC CONTROL #3453.  
 03/18/1999 - 02/28/2001 FY00: \$60,000 Total: \$110,000  
 Prin. Invest.: D J COSTELLO, JR.  
 Tech. Officer: GSFC/W H MILLER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 9364 UNIVERSITY OF NOTRE DAME 4498**  
 SUPERNOVAE AND THE UNIVERSE (LTSA - 99)  
 04/25/2000 - 04/30/2001 FY00: \$118,633 Total: \$118,633  
 Prin. Invest.: P GARNAVICH  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9731 UNIVERSITY OF NOTRE DAME 4499**  
 THE MICROLENSING PLANET SEARCH PROJECT  
 06/20/2000 - 02/28/2001 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: D BENNETT  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 13 - PHYSICS

**NCC 1 395 UNIVERSITY OF NOTRE DAME 4500**  
 TURBULENT WAKE DEVELOPMENT IN PRESSURE GRADIENT  
 05/08/2000 - 05/14/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: R C NELSON, F O THOMAS  
 Tech. Officer: LARC/J B ANDERS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 1014 UNIVERSITY OF NOTRE DAME 4501**  
 EXPERIMENTAL INVESTIGATION OF UNSTEADY ASPECTS OF HIGH FLOWS  
 02/01/1998 - 04/30/2001 FY00: \$79,810 Total: \$168,027  
 Prin. Invest.: F O THOMAS, S OLSON, R C NELSON  
 Tech. Officer: ARC/J C ROSS, ARC/D SATRAN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 3 466 UNIVERSITY OF NOTRE DAME 4502**  
 FUNDAMENTAL PROCESSES OF ATOMIZATION IN FLUID-FLUID FLOWS  
 04/16/1996 - 04/15/2001 FY00: \$32,000 Total: \$519,994  
 Prin. Invest.: M J MCCREADY, H C CHANG, D T LEIGHTON  
 Tech. Officer: GRC/J B MCGUILLEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 770 UNIVERSITY OF NOTRE DAME 4503**  
 EFFECTS OF NONUNIFORM FLOWS ON SOUND GENERATION AND PROPAGATION  
 02/10/2000 - 01/14/2001 FY00: \$103,727 Total: \$103,727  
 Prin. Invest.: D ATASSI  
 Tech. Officer: GRC/J R SCOTT  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 3 775 UNIVERSITY OF NOTRE DAME 4504**  
 ENHANCED DESIGN OF TURBO-JET LPT BY ACTIVE SEPARATION CONTROL  
 02/16/2000 - 12/15/2002 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: P C CORKE  
 Tech. Officer: GRC/D ASHPIS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 2645 VALPARISO UNIVERSITY 4505**  
 UV CHROMOSPHERIC ACTIVITY IN COOL, SHORT-PERIOD CONTACT BINARIES  
 07/12/1994 - 08/31/2000 FY00: -\$579 Total: \$6,721  
 Prin. Invest.: B J HRIVNAK  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3346 VALPARISO UNIVERSITY 4506**  
 ISO SPECTROSCOPY OF PROTO-PLANETARY NEBULAE  
 08/12/1996 - 08/14/2000 FY00: \$0 Total: \$33,100  
 Prin. Invest.: B J HRIVNAK  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8490 VALPARISO UNIVERSITY 4507**  
 VALIDATION OF H2O & O3 MEASUREMENTS FROM SAGE III USING TRAJECTORY MAPPING & CONSTITUENT RECONSTRUCT  
 05/19/1999 - 10/31/2000 FY00: \$25,745 Total: \$66,156  
*Prin. Invest.:* G A MORRIS  
*Tech. Officer:* GSFC/J C DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

## IOWA

**NAG 5 6854 DRAKE UNIVERSITY 4508**  
 WIRE OBSERVATIONS OF THE CIRCUMSTELLAR REGIONS OF EVOLVED MASSIVE STARS.  
 02/19/1998 - 02/14/2001 FY00: \$0 Total: \$49,000  
*Prin. Invest.:* A MARSTON  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1222 DRAKE UNIVERSITY 4509**  
 JOVE  
 11/30/1995 - 08/31/1999 FY00: -\$4,666 Total: \$39,834  
*Prin. Invest.:* M D VALLE-BOHORQUEZ  
*Tech. Officer:* MSFC/D SIX  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1933 IOWA STATE UNIVERSITY 4510**  
 DEVELOPMENT OF ENHANCED X-RAY INSPECTION  
 05/21/1997 - 05/19/2001 FY00: \$32,816 Total: \$233,900  
*Prin. Invest.:* J GRAY, J BASART  
*Tech. Officer:* LARC/W P WINFREE, LARC/F R PARKER  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2218 IOWA STATE UNIVERSITY 4511**  
 MODELING SURFACE ICING ROUGHNESS MODELING SURFACE ICING ROUGHNESS  
 12/15/1998 - 11/30/1999 FY00: \$0 Total: \$84,996  
*Prin. Invest.:* A P ROTHMAYER  
*Tech. Officer:* GRC/M G POTAPCZUK  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2342 IOWA STATE UNIVERSITY 4512**  
 MODELING SURFACE ICING ROUGHNESS AND SURFACE WATER TRANSPORT  
 03/01/2000 - 12/31/2000 FY00: \$80,184 Total: \$80,184  
*Prin. Invest.:* A ROTHMAYER  
*Tech. Officer:* GRC/M G POTAPCZUK  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 2787 IOWA STATE UNIVERSITY 4513**  
 DYNAMICAL ANALYSES OF MLS AND ISAMS DATA FROM THE UPPER ATMOSPHERE RESEARCH SATELLITE  
 11/14/1994 - 11/14/1998 FY00: \$0 Total: \$192,452  
*Prin. Invest.:* J L STANFORD  
*Tech. Officer:* GSFC/C H JACKMAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 2930 IOWA STATE UNIVERSITY 4514**  
 ANALYSES FOR THE CLIMATOLOGY AND SHORT-TERM VARIABILITY OF THE ATMOSPHERIC GENERAL CIRCULATION ETC  
 04/18/1995 - 05/31/1999 FY00: \$0 Total: \$240,000  
*Prin. Invest.:* T C CHEN, J J TRIBIA  
*Tech. Officer:* GSFC/S COHN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3317 IOWA STATE UNIVERSITY 4515**  
 IR IMAGING OF COLLISIONAL RING GALAXIES  
 07/31/1996 - 08/14/1999 FY00: \$0 Total: \$18,000  
*Prin. Invest.:* P N APPLETON  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4060 IOWA STATE UNIVERSITY 4516**  
 THEORETICAL MODELS OF HOT PRE-WHITE DWARFS FOR SEI  
 03/18/1997 - 03/31/2000 FY00: \$0 Total: \$136,200  
*Prin. Invest.:* S D KAWALER  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6353 IOWA STATE UNIVERSITY 4517**  
 MINIATURIZED LIQUID CHROMATOGRAPHY  
 09/23/1997 - 11/30/2000 FY00: \$0 Total: \$152,951  
*Prin. Invest.:* M POTTER  
*Tech. Officer:* GSFC/LP CHAMBERS  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 7070 IOWA STATE UNIVERSITY 4518**  
 COORDINATED OBSERVATIONS OF TEV BL LAC OBJECTS  
 03/04/1998 - 03/14/2000 FY00: \$0 Total: \$23,900  
*Prin. Invest.:* M A CATANESE  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7133 IOWA STATE UNIVERSITY 4519**  
 ATMOSPHERIC DYNAMICS DEDUCED FROM UARS USING MIDDLE ATMOSPHERE ISAMSCARBOT MONOXIDE AND UPPER T  
 03/16/1998 - 04/30/2001 FY00: \$83,462 Total: \$176,922  
*Prin. Invest.:* D L STANFORD  
*Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/A DOUGLASS  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7271 IOWA STATE UNIVERSITY 4520**  
 SMALL SCALE TROPOPAUSE DYNAMICS AND TOMS TOTAL OZONE  
 05/05/1998 - 05/14/2001 FY00: \$80,500 Total: \$211,500  
*Prin. Invest.:* S L STANFORD  
*Tech. Officer:* GSFC/S CHANDRA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7423 IOWA STATE UNIVERSITY 4521**  
 XTE PROPOSAL (30260) - CORRELATED OBSERVATIONS OF MARKARIAN 501  
 05/26/1998 - 05/31/2000 FY00: \$0 Total: \$9,167  
*Prin. Invest.:* M A CATANESE  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

<b>NAG 5 7530</b> <b>IOWA STATE UNIVERSITY</b> <b>4522</b> ANALYSES FOR THE CLIMATOLOGY AND SHORT-TERM VARIABILITY OF THEATMOSPHERIC GENERALCIRCULA 06/12/1998 - 06/14/2001                      FY00: \$85,000                      Total: \$216,000 Prin. Invest.: T CHEN Tech. Officer: GSFC/S SCHUBERT CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 8 1637</b> <b>IOWA STATE UNIVERSITY</b> <b>4530</b> AN ADVANCED ENTRY GUIDANCE CONCEPT BASED ON TRAJECTORY REGULATION 10/28/1999 - 01/31/2001                      FY00: \$70,282                      Total: \$70,282 Prin. Invest.: P LU Tech. Officer: MSFC/G DUKEMAN CASE Category: 46 - MECHANICAL ENGR
<b>NAG 5 7561</b> <b>IOWA STATE UNIVERSITY</b> <b>4523</b> COUPLED ATMOSPHERE-SNOW MODEL EVALUATION OF REGIONAL SNOWMELT 06/29/1998 - 06/30/2001                      FY00: \$0                      Total: \$270,000 Prin. Invest.: W J GUTOWSKI, JR. Tech. Officer: GSFC/E T ENGMAN CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 8 1681</b> <b>IOWA STATE UNIVERSITY</b> <b>4531</b> DYNAMICAL SELECTION OF THREE-DIMENSIONAL INTERFACE PATTERNS IN DIRECTIONAL SOLIDIFICATION. 05/25/2000 - 11/30/2003                      FY00: \$20,000                      Total: \$20,000 Prin. Invest.: R K TRIVETI Tech. Officer: MSFC/A JACKSON CASE Category: 47 - METAL & MATERIALS ENGR
<b>NAG 5 7756</b> <b>IOWA STATE UNIVERSITY</b> <b>4524</b> DYNAMICS OF THE ASTEROID ENVIRONMENT 12/09/1998 - 10/31/1999                      FY00: \$0                      Total: \$18,000 Prin. Invest.: D J SCHEERES Tech. Officer: GSFC/J GRANT CASE Category: 11 - ASTRONOMY	<b>NAG 9 827</b> <b>IOWA STATE UNIVERSITY</b> <b>4532</b> DETERMINING CONDITIONS FOR DEVELOPMENT OF FUNCTIONAL CARTI- LAGE 08/15/1995 - 09/07/1999                      FY00: -\$215                      Total: \$363,785 Prin. Invest.: C A HEATH Tech. Officer: JSC/N R PELLIS CASE Category: 56 - MEDICL
<b>NAG 5 8293</b> <b>IOWA STATE UNIVERSITY</b> <b>4525</b> DIAGNOSIS AND SIMULATION OF THE SOUTHEAST ASIAN-INDUCED WAVE- TRAIN THAT OCCURS DURING TROPICAL PACI 02/25/1999 - 02/28/2001                      FY00: \$33,853                      Total: \$66,384 Prin. Invest.: T C CHEN Tech. Officer: GSFC/M RIENECKER CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 9 1115</b> <b>IOWA STATE UNIVERSITY</b> <b>4533</b> EXAMINATION OF BACTERIA MATERIALS 05/10/1999 - 05/09/2004                      FY00: \$15,000                      Total: \$30,000 Prin. Invest.: P A BAZLINSKI Tech. Officer: JSC/E K GIBSON CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 8352</b> <b>IOWA STATE UNIVERSITY</b> <b>4526</b> THEORETICAL MODELS FOR SEISMOLOGICAL STUDIES OF HOT COMPACT STARS_(ATP98 03/01/1999 - 02/28/2001                      FY00: \$62,115                      Total: \$125,926 Prin. Invest.: S D KAWALER Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY	<b>NAG 9 1184</b> <b>IOWA STATE UNIVERSITY</b> <b>4534</b> EXPERIMENTS TO DETERMINE THE AERODYNAMIC COEFFICIENT OF THE X38 PARAFOIL 01/28/2000 - 05/31/2001                      FY00: \$10,000                      Total: \$10,000 Prin. Invest.: L M LILJEGREN, NONE Tech. Officer: JSC/R L BARTON, JSCW D GOODRICH CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 5 8465</b> <b>IOWA STATE UNIVERSITY</b> <b>4527</b> THE RESPONSE OF THE SOLAR ATMOSPHERE TO TIME-VARYING AND SPATIALLY IN- HOMOGENEOUS BOUNDARY CONDIT 04/21/1999 - 03/31/2001                      FY00: \$41,693                      Total: \$85,086 Prin. Invest.: L A WILLSON Tech. Officer: GSFC/W WAGNER CASE Category: 11 - ASTRONOMY	<b>NAG 9 1191</b> <b>IOWA STATE UNIVERSITY</b> <b>4535</b> RAPID SPECIFIC CHEMICAL SENSORS AND TEST KIT 02/28/2000 - 01/31/2003                      FY00: \$261,607                      Total: \$261,607 Prin. Invest.: M D PORTER Tech. Officer: JPL/D JAN CASE Category: 59 - LIFE SCIENCE, OTHER
<b>NAG 5 8892</b> <b>IOWA STATE UNIVERSITY</b> <b>4528</b> MINIATURIZED LIQUID CHROMATOGRAPHY 12/07/1999 - 11/30/2000                      FY00: \$84,314                      Total: \$84,314 Prin. Invest.: M PORTER Tech. Officer: GSFC/G FOGELMAN CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 2 5216</b> <b>IOWA STATE UNIVERSITY</b> <b>4536</b> UNCERTAINTY RELATIONSHIP HANDLER FOR ESTIMATING ROBOT ENVI- RONMENTS (URHERE) 05/16/1997 - 04/30/1999                      FY00: \$0                      Total: \$25,000 Prin. Invest.: G THOMAS Tech. Officer: ARC/M H SIMS CASE Category: 22 - COMPUTER SCIENCE
<b>NAG 8 1289</b> <b>IOWA STATE UNIVERSITY</b> <b>4529</b> FOR RESEARCH "ENTRY GUIDANCE FOR THE REUSABLE LAUNCH VEHICLE." 01/08/1997 - 01/07/1999                      FY00: -\$20                      Total: \$63,207 Prin. Invest.: P LU Tech. Officer: MSFC/J M HANSON, MSFC/G A DUKEMAN CASE Category: 42 - ASTRONAUTICAL ENGR	<b>NCC 2 5349</b> <b>IOWA STATE UNIVERSITY</b> <b>4537</b> PROPOSAL FOR JOINT RESEARCH EXCHANGE BETWEEN NASA & ISU 09/03/1999 - 12/31/2000                      FY00: \$85,500                      Total: \$109,500 Prin. Invest.: M S GORDON Tech. Officer: ARC/W M HUO, ARC/R L JAFFE CASE Category: 12 - CHEMISTRY

**NCC 2 5379 IOWA STATE UNIVERSITY 4538**  
 STOKES CODE FOR COMPUTING MAGNETO-HYDRODYNAMIC FLOW FIELDS  
 04/07/2000 - 04/30/2001 FY00: \$28,000 Total: \$28,000  
*Prin. Invest.:* J C TANNEHILL  
*Tech. Officer:* ARC/U B MEHTA  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 4 117 IOWA STATE UNIVERSITY 4539**  
 COMBINE TRAJECTORY DESIGN AND FLIGHT CONTROL SYSTEM RECONFIGURATION  
 03/03/1998 - 12/31/2000 FY00: -\$1 Total: \$44,999  
*Prin. Invest.:* P LU  
*Tech. Officer:* DFRC/J BURKEN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 4 122 IOWA STATE UNIVERSITY 4540**  
 RECONFIGURABLE FLIGHT CONTROL SYSTEM DESIGN  
 04/28/1999 - 04/28/2001 FY00: \$0 Total: \$49,000  
*Prin. Invest.:* P LU  
*Tech. Officer:* DFRC/J BURKEN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 8 98 IOWA STATE UNIVERSITY 4541**  
 INTERFACE PATTERN SELECTION CRITERION FOR CELLULAR STRUCTURES IN DIRECTIONAL SOLIDIFICATION  
 06/28/1996 - 06/30/2001 FY00: \$204,043 Total: \$810,543  
*Prin. Invest.:* R K TRIVEDI  
*Tech. Officer:* MSFC/D HUBBARD  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 9 100 IOWA STATE UNIVERSITY 4542**  
 60 DAY DEFINITION PHASE  
 08/01/1999 - 10/03/2004 FY00: \$500,000 Total: \$800,000  
*Prin. Invest.:* D OLSEN  
*Tech. Officer:* JSC/H LANE  
*CASE Category:* 55 - AGRICULTURE

**NGT 3 52332 IOWA STATE UNIVERSITY 4543**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/11/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* A ROTHMAYER  
*Tech. Officer:* GRC/F J MONTAGANI  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 5 40027 IOWA STATE UNIVERSITY 4544**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/09/1997 - 01/31/2001 FY00: \$495,600 Total: \$1,814,400  
*Prin. Invest.:* W J BYRD  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1907 UNIVERSITY OF IOWA 4545**  
 IMPACT OF MINERAL AEROSOLS AND ASIAN EMISSIONS ON THE CHEMISTRY OF THE TROPOSPHERE  
 03/19/1997 - 03/31/2000 FY00: \$30,814 Total: \$338,814  
*Prin. Invest.:* G R CAMICHAEL  
*Tech. Officer:* LARC/G L MADDREA, LARC/L R POOLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 2305 UNIVERSITY OF IOWA 4546**  
 IMPACT OF MINERAL AND OTHER AEROSOLS AND ASIAN EMISSIONS ON THE CHEMISTRY OF THE TROPOSPHERE  
 06/15/2000 - 03/31/2003 FY00: \$90,000 Total: \$90,000  
*Prin. Invest.:* G R CAMICHAEL, H LEVY  
*Tech. Officer:* LARC/G L MADDREA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 2 571 UNIVERSITY OF IOWA 4547**  
 "CONTINUING ANALYSIS AND INTERPRETATION OF DATA FROM PIONEER 10 AND PIONEER 11"  
 05/23/1989 - 12/31/1999 FY00: \$0 Total: \$1,265,482  
*Prin. Invest.:* J A VAN ALLEN  
*Tech. Officer:* ARC/L E LASHER, ARC/R O FIMMEL  
*CASE Category:* 11 - ASTRONOMY

**NAG 2 1167 UNIVERSITY OF IOWA 4548**  
 VIDEO ENGRAVING FOR MOBILE ROBOTICS  
 11/19/1997 - 08/31/2000 FY00: \$0 Total: \$77,199  
*Prin. Invest.:* G W THOMAS  
*Tech. Officer:* ARC/M H SIMS  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1296 UNIVERSITY OF IOWA 4549**  
 REMOTE GEOLOGY SYSTEM ANALYSIS & DEVELOPMENT FOR MARS EXPLORATION  
 03/01/1999 - 01/31/2001 FY00: \$0 Total: \$50,018  
*Prin. Invest.:* G W THOMAS  
*Tech. Officer:* ARC/M SIMS, ARC/S LAU  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 3 2128 UNIVERSITY OF IOWA 4550**  
 PLASMA DUST CRYSTALLIZATION PLASMA DUST CRYSTALLIZATION  
 02/27/1998 - 12/31/2002 FY00: \$121,000 Total: \$335,000  
*Prin. Invest.:* J A GOREE  
*Tech. Officer:* GRC/R B ROGERS  
*CASE Category:* 13 - PHYSICS

**NAG 3 2368 UNIVERSITY OF IOWA 4551**  
 RIVULET DYNAMICS WITH VARIABLE GRAVITY AND WIND SHEAR  
 04/03/2000 - 11/30/2003 FY00: \$49,981 Total: \$49,981  
*Prin. Invest.:* D S MARSHALL  
*Tech. Officer:* GRC/C E NIEDERHAUS  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2375 UNIVERSITY OF IOWA 4552**  
 THEORY AND SIMULATION OF GROUND-BASED AND MICROGRAVITY DUSTY PLASMA EXPERIMENTS  
 03/28/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* A BHATTACHARJEE  
*Tech. Officer:* GRC/R B ROGERS  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 2231 UNIVERSITY OF IOWA 4553**  
 METHODOLOGY FOR 3D QUADRATURE OF GGS/HYDRA DATA INCLUDING CALIBRATION DATA, SPACECRAFT POTENTIAL  
 05/10/1993 - 12/31/1999 FY00: \$0 Total: \$2,867,001  
*Prin. Invest.:* J D SCUDDER  
*Tech. Officer:* GSFC/M H ACUNA, GSFC/D N BAKER  
*CASE Category:* 13 - PHYSICS

**NAG 5 2371 UNIVERSITY OF IOWA 4554**  
 ANALYSIS OF PLASMA MEASUREMENTS FOR THE GEOTAIL MISSION  
 09/21/1993 - 03/31/2000 FY00: \$0 Total: \$4,089,734  
 Prin. Invest.: L A FRANK  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 3318 UNIVERSITY OF IOWA 4555**  
 ISO OBSERVATIONS OF VARIABLE CIRCUMSTELLAR SHELLS  
 07/31/1996 - 08/14/1999 FY00: -\$583 Total: \$17,417  
 Prin. Invest.: J D FIX  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3328 UNIVERSITY OF IOWA 4556**  
 GLOBAL ULTRAVIOLET IMAGING PROCESSING FOR THE GGS/SYSTEM  
 10/01/1996 - 09/30/1999 FY00: \$0 Total: \$462,006  
 Prin. Invest.: D A FRANK  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 3716 UNIVERSITY OF IOWA 4557**  
 BALLOONING INSTABILITIES OF THIN CURRENT SHEETS  
 01/24/1997 - 01/31/2001 FY00: \$99,378 Total: \$253,128  
 Prin. Invest.: A BHATTACHARJEE  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 4266 UNIVERSITY OF IOWA 4558**  
 STUDY OF AURORAL ELECTRON ACCELERATION BY KINETIC  
 03/25/1997 - 05/14/2001 FY00: \$0 Total: \$261,100  
 Prin. Invest.: D F OTANI  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 13 - PHYSICS

**NAG 5 4497 UNIVERSITY OF IOWA 4559**  
 COMPREHENSIVE INVESTIGATION OF 2FP RADIO EMISSIONS THE DAYSIDE  
 AND NIGHTSIDE AURORAL REGIONS  
 05/06/1997 - 05/31/2000 FY00: \$0 Total: \$113,060  
 Prin. Invest.: D MENIETTI  
 Tech. Officer: GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 4581 UNIVERSITY OF IOWA 4560**  
 A LOW COST MERCURY ORBITER MISSION  
 05/13/1997 - 03/31/2000 FY00: \$0 Total: \$34,000  
 Prin. Invest.: D S KURTH  
 Tech. Officer: GSFC/R HOWARD  
 CASE Category: 13 - PHYSICS

**NAG 5 4755 UNIVERSITY OF IOWA 4561**  
 GROUND-BASED RADAR-RAINFALL ESTIMATION FOR THE GUA VALIDA-  
 TION SITES  
 06/27/1997 - 08/30/2000 FY00: \$162,500 Total: \$820,786  
 Prin. Invest.: W F KRAJEWSKI  
 Tech. Officer: GSFC/G M HEYMSFIELD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 5051 UNIVERSITY OF IOWA 4562**  
 PLASMA TURBULENCE IN THE INTERSTELLAR MEDIUM: SIMILARITY TO  
 HELIOSPHERIC TURBULENCE & ROLE IN...  
 01/25/1996 - 09/30/2000 FY00: \$0 Total: \$152,000  
 Prin. Invest.: S R SPANGLER  
 Tech. Officer: GSFC/H C NEEDLEMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 5232 UNIVERSITY OF IOWA 4563**  
 ROCKET AURORAL CORRELATOR EXPERIMENT PI DR. CRAIG KLETZING  
 02/12/1999 - 02/09/2002 FY00: \$187,700 Total: \$298,257  
 Prin. Invest.: C A KLETZING  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 6127 UNIVERSITY OF IOWA 4564**  
 THEORETICAL STUDIES OF TYPE III SOLAR RADIO BURSTS  
 08/04/1997 - 07/14/2001 FY00: \$0 Total: \$130,840  
 Prin. Invest.: D CAIRNS  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6369 UNIVERSITY OF IOWA 4565**  
 LANGMUIR-LIKE WAVES AND RADIATION IN PLANETARY FOR  
 09/25/1997 - 08/31/2001 FY00: \$0 Total: \$87,000  
 Prin. Invest.: D H CAIRNS  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 6525 UNIVERSITY OF IOWA 4566**  
 KINETIC ALFVEN WAVE ELECTRON ACCELERATION ON AURORAL FIELD  
 LINES  
 11/25/1997 - 02/28/2001 FY00: \$0 Total: \$72,074  
 Prin. Invest.: D A KLETZING  
 Tech. Officer: GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 6670 UNIVERSITY OF IOWA 4567**  
 PROJECT LIVE: LABORATORY FOR THE IMMERSIVE VISUALIZATION OF  
 THE ENVIRONMENT  
 12/16/1997 - 10/31/1999 FY00: \$0 Total: \$213,470  
 Prin. Invest.: M ARMSTRONG  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7187 UNIVERSITY OF IOWA 4568**  
 RESTORATION AND ARCHIVING OF THE ISEE 1 AND 2 PLASMA WAVE  
 INVESTIGATION DATA SETS  
 03/26/1998 - 03/31/2001 FY00: \$46,477 Total: \$134,117  
 Prin. Invest.: D ANDERSON  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7390 UNIVERSITY OF IOWA 4569**  
 GENERATION AND SCATTERING OF RADIATION OBSERVED BY VOYAGER  
 IN THE OUTER HELIOSPHERE  
 05/07/1998 - 02/28/2001 FY00: \$12,200 Total: \$43,200  
 Prin. Invest.: I H CAIRNS  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7684 UNIVERSITY OF IOWA 4570**  
 FUNDING OF THE ANALYSIS OF PLASMA MEASUREMENTS FOR THE  
 GEOTAIL EXTENDED MISSION / FUNDING FOR YR 1  
 09/09/1998 - 09/30/2001 FY00: \$296,667 Total: \$1,166,667  
 Prin. Invest.: L A FRANK  
 Tech. Officer: GSFC/D H FAIRFIELD  
 CASE Category: 13 - PHYSICS

**NAG 5 7710 UNIVERSITY OF IOWA 4571**  
 A PROPOSAL FOR STUDYING GEOMAGNETIC STORMS FROM THE ANAL-  
 YSES AND INTER. OF PLASMA WAVE DATA  
 09/23/1998 - 09/30/2001 FY00: \$140,000 Total: \$460,000  
 Prin. Invest.: R R ANDERSON  
 Tech. Officer: GSFC/D H FAIRFIELD  
 CASE Category: 13 - PHYSICS

**NAG 5 7712 UNIVERSITY OF IOWA 4572**  
 FUNDING FOR VIS ON THE POLAR SPACECRAFT FOR THE EX TENDED  
 MISSION  
 09/28/1998 - 09/30/2000 FY00: \$582,000 Total: \$1,432,000  
 Prin. Invest.: L A FRANK  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 7883 UNIVERSITY OF IOWA 4573**  
 COLLISIONLESS RECONNECTION: THEORY AND HIGH-RESOLU TION  
 SIMULATIONS FOR THE ISTP/SOLARMAX MISSION  
 12/01/1998 - 11/30/1999 FY00: \$0 Total: \$60,698  
 Prin. Invest.: J D SCUDDER  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 7943 UNIVERSITY OF IOWA 4574**  
 POLAR PLASMA WAVE INVESTIGATION DATA ANALYSIS IN T HE EXTENDED  
 MISSION  
 01/27/1999 - 11/30/2000 FY00: \$287,000 Total: \$742,757  
 Prin. Invest.: D GURNATT  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8119 UNIVERSITY OF IOWA 4575**  
 GGS-POLAR-HYDRA EXTENDED MISSION SCIENCE INVESTIGA TION  
 01/29/1999 - 12/31/2000 FY00: \$506,000 Total: \$1,250,000  
 Prin. Invest.: J SCUDDER  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8873 UNIVERSITY OF IOWA 4576**  
 COUPLING SATELLITE REMOTE SENSING & UNSTEADY FLOW MODELING  
 FOR DISCHARGE ESTIMATION  
 11/16/1999 - 10/31/2001 FY00: \$88,420 Total: \$88,420  
 Prin. Invest.: A BRADLEY  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8918 UNIVERSITY OF IOWA 4577**  
 ANALYSIS AND MODELING OF JOVIAN RADIO EMISSIONS OBSERVED BY  
 GALILEO  
 01/18/2000 - 12/31/2000 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: J MENIETTI  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9499 UNIVERSITY OF IOWA 4578**  
 NEW GRANT EXTEND SOLAR MAX: COLLISIONLESS RECOMME NDATION  
 THEORY AND HIGH RESOLUTION SIMULATIONS  
 05/04/2000 - 05/14/2001 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: J SCUDDER  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9561 UNIVERSITY OF IOWA 4579**  
 WAVE AND PARTICLE INTERACTIONS IN THE HIGH AND LOW -ALTITUDE  
 AURORAL REGION DURING RISING SOLARACTI  
 05/04/2000 - 05/14/2001 FY00: \$70,041 Total: \$70,041  
 Prin. Invest.: D GURNETT  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9664 UNIVERSITY OF IOWA 4580**  
 GROUND-BASED RAINFALL ESTIMATION STUDIES FOR TRMM VALIDATION  
 06/08/2000 - 12/14/2000 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: W F KRAJEWSKI  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9964 UNIVERSITY OF IOWA 4581**  
 X-RAY EMISSION FROM SINGLE WOLF-RAYET STARS  
 09/25/2000 - 09/30/2001 FY00: \$18,581 Total: \$18,581  
 Prin. Invest.: R IGNACE  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9974 UNIVERSITY OF IOWA 4582**  
 A PROPOSAL FOR CLUSTER II WIDEBAND (WBD) PLASMA WAVE INVES-  
 TIGATION MISSION OPERATIONS & DATA  
 09/21/2000 - 09/30/2001 FY00: \$300,000 Total: \$300,000  
 Prin. Invest.: D GURNETT  
 Tech. Officer: GSFC/M GOLDSTEIN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1352 UNIVERSITY OF IOWA 4583**  
 FOR RESEARCH "REAL TIME MONITORING OF PROTEIN CONCENTRATION  
 IN SOLUTION TO CONTROL NUCLEATION...  
 06/02/1997 - 11/30/2000 FY00: \$126,000 Total: \$490,542  
 Prin. Invest.: M A ARNOLD  
 Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1386 UNIVERSITY OF IOWA 4584**  
 RESEARCH " THERMODYNAMICS OF PROTEIN CRYSTALLIZA- TION AND  
 LINKS TO CRYSTAL QUALITY"  
 06/23/1997 - 12/23/2000 FY00: \$170,998 Total: \$560,998  
 Prin. Invest.: J M WIENCEK  
 Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO  
 CASE Category: 12 - CHEMISTRY

**NAG 8 1425 UNIVERSITY OF IOWA 4585**  
 R/S SHORT TERM QUANTITATIVE PRECIPITATION FORE- CASTING USING  
 MULTI-SENSOR REMOTE SENSING AND ETA  
 01/14/1998 - 09/30/2000 FY00: \$0 Total: \$117,940  
 Prin. Invest.: W F KRAJEWSKI  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

## NASA'S UNIVERSITY PROGRAM

KANSAS

**NAG 8 1588 UNIVERSITY OF IOWA 4586**  
 REJUBENATION OF SPENT MEDIA VIA SUPPORTED EMU- LATION LIQUID  
 MEMBRANES  
 03/19/1999 - 11/30/2002 FY00: \$180,000 Total: \$333,000  
*Prin. Invest.:* J WIENECK  
*Tech. Officer:* MSFC/B GUYNES, MSFC/D CHAFEE  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1591 UNIVERSITY OF IOWA 4587**  
 EVALUATING OXIDATIVE STREE IN VIRALLY-INFECTED CELLS IN  
 SIMULATED MICROGRAVITY  
 03/19/1999 - 11/30/2002 FY00: \$137,000 Total: \$241,000  
*Prin. Invest.:* V G RODGERS  
*Tech. Officer:* JSC/M ANDERSON  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1592 UNIVERSITY OF IOWA 4588**  
 R/S MONITORING AND CONTROL OF ROTATING WALL VESSELS AND  
 APPLICATION TO THE STUDY OF PROSTATE  
 03/30/1999 - 11/30/2002 FY00: \$271,000 Total: \$392,000  
*Prin. Invest.:* D W MURHAMMER  
*Tech. Officer:* JSC/S GONDA  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1593 UNIVERSITY OF IOWA 4589**  
 R/S EXTREMOPHILIC INTERFACIAL SYSTEMS FOR WASTE PROCESSING IN  
 SPACE  
 03/15/1999 - 11/30/2002 FY00: \$118,000 Total: \$211,000  
*Prin. Invest.:* T L PEEPLES  
*Tech. Officer:* MSFC/B GUYNES, MSFC/D CHAFEE  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 824 UNIVERSITY OF IOWA 4590**  
 STUDY OF PROSTATE CANCER  
 08/08/1995 - 08/24/2000 FY00: \$0 Total: \$905,000  
*Prin. Invest.:* D W MURHAMMER  
*Tech. Officer:* JSC/N PELLIS  
*CASE Category:* 56 - MEDICL

**NAS 5 30371 UNIVERSITY OF IOWA 4591**  
 PLASMA WAVE INVESTIGATION PHASE C/D ISTP POLAR MISSION  
 12/29/1988 - 03/31/1999 FY00: \$0 Total: \$9,566,160  
*Prin. Invest.:* D A GURNETT  
*Tech. Officer:* GSFC/D CROSBY  
*CASE Category:* 13 - PHYSICS

**NAS 5 30730 UNIVERSITY OF IOWA 4592**  
 ISTP PROJECT'S WIDEBAND PLASMA WAVE INVESTIGATION  
 01/30/1990 - 11/09/2000 FY00: \$44,916 Total: \$6,404,840  
*Prin. Invest.:* D GURNETT  
*Tech. Officer:* GSFC/J L CHRISTENSEN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 422 UNIVERSITY OF IOWA 4593**  
 REGIONAL SCALE FORCASTING AND EXPERIMENT-SPECIFIC EMISSION  
 ESTIMATES OF GAS AND AEROSOL DISTRIBUTION  
 09/26/2000 - 06/30/2003 FY00: \$36,890 Total: \$36,890  
*Prin. Invest.:* G R CARMICHAEL  
*Tech. Officer:* LARC/J L RAPER, SR  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 3 666 UNIVERSITY OF IOWA 4594**  
 REFLIGHT OF ELF (ENCLOSED LAMINAR FLAMES) INVESTIG ATION  
 02/02/1999 - 01/03/2003 FY00: \$82,000 Total: \$143,875  
*Prin. Invest.:* D CHEN  
*Tech. Officer:* GRC/D P STOCKER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 8 94 UNIVERSITY OF IOWA 4595**  
 EQUIAXED DENDRITIC SOLIDIFICATION EXPERIMENT (EDSE)  
 05/31/1996 - 01/31/2001 FY00: \$200,000 Total: \$716,980  
*Prin. Invest.:* C BECKERMANN  
*Tech. Officer:* MSFC/A JACKMAN, MSFC  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 8 199 UNIVERSITY OF IOWA 4596**  
 DENDRITIC ALLOY SOLIDIFICATION EXPERIMENT (DASE)  
 04/12/2000 - 11/30/2003 FY00: \$20,000 Total: \$20,000  
*Prin. Invest.:* C BECKERMANN  
*Tech. Officer:* GSFC/P DOTY  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NGT 5 30031 UNIVERSITY OF IOWA 4597**  
 VALIDATION OF RAINFALL ESTIMATES FROM SPACE-BORNE  
 10/17/1996 - 02/28/2001 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* W F KRAJEWSKI  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 11 - ASTRONOMY

**NGT 5 30199 UNIVERSITY OF IOWA 4598**  
 ASSESSMENT OF THE IMPACT OF ASIAN EMISSIONS ON A LOCAL,  
 REGIONAL & GLOBAL SCALE/STUDENT: SARATHG  
 08/25/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* G CARMICHAEL  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50156 UNIVERSITY OF IOWA 4599**  
 MICROVASCULAR ALTERATIONS IN SIMULATED MICROGRAVIT  
 09/11/1997 - 12/15/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* C V GISOLFI  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

## KANSAS

**NAG 5 8633 FORT HAYS STATE UNIVERSITY 4600**  
 A STUDY OF THE SEASONAL & INTERANNUAL VARIABILITY OF ICE  
 PRODUCTION & HEAT TRANSPORT IN BAFFIN BAY  
 07/01/1999 - 06/30/2000 FY00: \$0 Total: \$39,542  
*Prin. Invest.:* J HEINRICHS  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2234 KANSAS STATE UNIVERSITY 4601**  
 FURTHER INVEST OF RECEDING HORIZON-BASED CON- TROLLERS &  
 NEURAL NETWORK-BASED GPC SYSTEMS  
 08/20/1999 - 06/12/2000 FY00: \$0 Total: \$21,884  
*Prin. Invest.:* A G KELKAR  
*Tech. Officer:* LARC/P J HALEY  
*CASE Category:* 21 - MATHEMATICS

**NAG 2 1209 KANSAS STATE UNIVERSITY 4602**  
 MODEL CONSTRUCTION FOR FINITE STATE VERIFICATION: APPLICATION  
 OF ABSTRACT INTERPRETATION & PARTIAL  
 05/01/1998 - 03/31/2000 FY00: \$0 Total: \$443,064  
*Prin. Invest.:* D A SCHMIDT  
*Tech. Officer:* ARC/M R LOWRY  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1274 KANSAS STATE UNIVERSITY 4603**  
 DIFFERENTIATION OF BONE MARROW MACROPHAGES IN SPAC E-PHASE  
 A  
 12/28/1998 - 05/31/2002 FY00: \$124,812 Total: \$249,311  
*Prin. Invest.:* S K CHAPES  
*Tech. Officer:* ARC/W E HINDS  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 2360 KANSAS STATE UNIVERSITY 4604**  
 GELATION IN AEROSOLS: NON-MEAN-FIELD AGGREGATION KINETICS  
 03/27/2000 - 11/30/2003 FY00: \$39,999 Total: \$39,999  
*Prin. Invest.:* C SORENSEN  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 13 - PHYSICS

**NAG 5 6213 KANSAS STATE UNIVERSITY 4605**  
 LAND-COVER CHANGE IN THE GREAT PLAINS: PREDICTING IMPACTS OF  
 REGIONAL FOREST EXPANSION ON BIOGEOCH  
 10/24/1997 - 07/31/2001 FY00: \$58,120 Total: \$485,000  
*Prin. Invest.:* D JOHNSON *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/A JANETOS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1687 KANSAS STATE UNIVERSITY 4606**  
 RESEARCH ENTITLED, "NANOCRYSTAL SUPERLATTICES: SYNTHESIS AND  
 PROPERTIES"  
 06/01/2000 - 11/30/2003 FY00: \$35,000 Total: \$35,000  
*Prin. Invest.:* C M KLABUNDE  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1702 KANSAS STATE UNIVERSITY 4607**  
 RESEARCH, "CRYSTAL GROWTH OF NEW FAMILIES OF FERROELASTIC  
 MATERIALS"  
 06/07/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* M D HOLLINGSWORTH  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAGW 2328 KANSAS STATE UNIVERSITY 4608**  
 THE CENTER FOR GRAVITATIONAL STUDIES IN CELLULAR AND DEVELOP-  
 MENTAL BIOLOGY  
 02/12/1991 - 08/31/1999 FY00: \$0 Total: \$5,070,154  
*Prin. Invest.:* B S SPOONER  
*Tech. Officer:* HQ/R J WHITE  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG10 142 KANSAS STATE UNIVERSITY 4609**  
 STARCH METABOLISM INSPACE-GROWN SOYBEAN SEEDLINGS  
 07/15/1994 - 09/30/1999 FY00: -\$55 Total: \$325,317  
*Prin. Invest.:* J A GUIKEMA  
*Tech. Officer:* KSC/W M KNOTT  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 1 225 KANSAS STATE UNIVERSITY 4610**  
 GENERALIZED PREDICTIVE AND NEURAL GENERALIZED PREDICTIVE  
 CONTROL AEROSPACE SYSTEMS  
 05/07/1996 - 05/15/2000 FY00: \$1 Total: \$127,819  
*Prin. Invest.:* A G KELKAR  
*Tech. Officer:* LARC/P J HALEY, ARC/D I SOLOWAY  
*CASE Category:* 21 - MATHEMATICS

**NCC 1 226 KANSAS STATE UNIVERSITY 4611**  
 PASSIVITY-BASED ROBUST CONTROL OF AEROSPACE SYST  
 04/09/1996 - 04/08/2000 FY00: \$1 Total: \$115,876  
*Prin. Invest.:* D G KELKAR  
*Tech. Officer:* LARC/D M JOSHI  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 348 KANSAS STATE UNIVERSITY 4612**  
 SYNTHESIS METHODS FOR ROBUST PASSIFICATION AND CONTROL OF  
 LINEAR, TIME-INVARIANT (LTI) SYSTEMS  
 06/29/1999 - 05/31/2001 FY00: \$15,000 Total: \$27,500  
*Prin. Invest.:* A G KELKAR  
*Tech. Officer:* LARC/S M JOSHI  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 400 KANSAS STATE UNIVERSITY 4613**  
 PREDICTIVE AND NEURAL PREDICTIVE CONTROL OF UNCERTAIN  
 SYSTEMS  
 05/31/2000 - 02/28/2003 FY00: \$24,919 Total: \$24,919  
*Prin. Invest.:* A G KELKAR  
*Tech. Officer:* LARC/P J HALEY  
*CASE Category:* 21 - MATHEMATICS

**NCC 5 234 KANSAS STATE UNIVERSITY 4614**  
 ASPECTS AND CONTROL OF TIDAL SEDIMENTATION AND THE EXTRAC-  
 TION AND MODELING OF TIDAL PARAMETERS FROM  
 12/12/1997 - 09/30/2001 FY00: \$0 Total: \$75,000  
*Prin. Invest.:* A ARCHER  
*Tech. Officer:* GSFC/B BILLS  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 1 1821 UNIVERSITY OF KANSAS 4615**  
 AERODYNAMIC MODELING FOR AIRCRAFT IN UNSTEADY FLIGHT  
 CONDITIONS  
 03/22/1996 - 09/30/1999 FY00: -\$1 Total: \$140,168  
*Prin. Invest.:* C E LAN  
*Tech. Officer:* LARC/J M BRANDON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 4039 UNIVERSITY OF KANSAS 4616**  
 PROBING LARGE SCALE STRUCTURE AND GALAXY FORMATION ABSORP-  
 TION SPECTRA  
 02/26/1997 - 02/28/1999 FY00: \$0 Total: \$35,000  
*Prin. Invest.:* D L MELOTT  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4358 UNIVERSITY OF KANSAS 4617**  
 STUDIES IN PLANETARY AERONOMY  
 04/17/1997 - 03/31/2001 FY00: \$67,259 Total: \$273,759  
*Prin. Invest.:* D E CRAVENS  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE



## NASA'S UNIVERSITY PROGRAM

## KANSAS

**NAG 5 4990 UNIVERSITY OF KANSAS 4618**  
 DEVELOPMENT OF LAND USE MAPPING AND PROTOCOL FOR T A MULTI-  
 TEMPORAL REMOTE SENSING APPLICATION  
 06/27/1997 - 09/30/2000 FY00: \$75,000 Total: \$440,431  
 Prin. Invest.: K P PRICE  
 Tech. Officer: GSFC/A J TUYAHOV  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6345 UNIVERSITY OF KANSAS 4619**  
 MEASUREMENT OF THICKNESS OF THE GREENLAND ICE SHEET SCAT-  
 TERING PROPERTIES OF GLACIAL ICE  
 09/12/1997 - 09/30/1999 FY00: \$0 Total: \$391,548  
 Prin. Invest.: S D GOGINENI  
 Tech. Officer: GSFC/E E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6766 UNIVERSITY OF KANSAS 4620**  
 STATISTICAL ALGORITHMS FOR THE ANALYSIS OF SPACE-BASED DATA-  
 SETS  
 01/15/1998 - 12/31/1999 FY00: -\$1,564 Total: \$35,036  
 Prin. Invest.: K ASHMAN  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7053 UNIVERSITY OF KANSAS 4621**  
 ANALYSIS OF AIRCRAFT LASER ALTIMETER DATA FROM GREENLAND  
 02/25/1998 - 02/28/2001 FY00: \$34,285 Total: \$90,772  
 Prin. Invest.: D A BRAATEN  
 Tech. Officer: GSFC/R THOMAS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7516 UNIVERSITY OF KANSAS 4622**  
 TRACKING INTERNAL LAYERS OF THE GREENLAND ICE SHEET USING  
 AIRBORNE RADIO ECHO SOUNDER IMAGES  
 06/04/1998 - 05/31/2001 FY00: \$0 Total: \$49,291  
 Prin. Invest.: J GAUCH  
 Tech. Officer: GSFC/W ABDALATI  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9840 UNIVERSITY OF KANSAS 4623**  
 REMOTE SENSING OF EAST ANTARCTIC ICE STREAMS  
 07/26/2000 - 08/31/2001 FY00: \$113,221 Total: \$113,221  
 Prin. Invest.: S GOGINENI  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9841 UNIVERSITY OF KANSAS 4624**  
 INCUBATING COMMERCIAL REMOTE SENSING PRODUCTS  
 07/28/2000 - 07/14/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: K P PRICE  
 Tech. Officer: GSFC/A J TUYAHOV  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG13 99009 UNIVERSITY OF KANSAS 4625**  
 CONSORTIUM FOR PRODUCTS AND TECHNOLOGY TO SUPPORT THE  
 GREAT PLAINS AGROECOSYSTEM  
 03/01/1999 - 03/01/2002 FY00: \$0 Total: \$1,550,000  
 Prin. Invest.: E A MARTINKO  
 Tech. Officer: SSC/C HILL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG13 99019 UNIVERSITY OF KANSAS 4626**  
 REMOTE SENSING-BASED GEOSTATISTICAL MODELING FOR CONIFEROUS  
 FOREST INVENTORY & CHARACTERIZATION  
 08/10/1999 - 08/09/2002 FY00: \$112,475 Total: \$200,000  
 Prin. Invest.: M JAKUBASKAS  
 Tech. Officer: SSC/R MCKALLIP  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAS 1 99052 UNIVERSITY OF KANSAS 4627**  
 DEVELOPMENT OF A HYBRID RF/LASER RADAR  
 03/08/1999 - 03/07/2001 FY00: \$184,042 Total: \$406,042  
 Prin. Invest.: C ALLEN  
 Tech. Officer: LARC/J HILL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 3 00162 UNIVERSITY OF KANSAS 4628**  
 NRA 99-OES-08 ESTO AIST SBI  
 08/01/2000 - 08/02/2002 FY00: \$107,462 Total: \$107,462  
 Prin. Invest.: G, J P EVANS  
 Tech. Officer: GRC/K BHASIN  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 5 168 UNIVERSITY OF KANSAS 4629**  
 KANSAS SPACE AND LIFE SCIENCES, GEOPHYSICAL INFORM AERO-  
 NAUTICS AND FLIGHT ENGINEERING TECHNOLOGY (K-  
 01/27/1997 - 12/31/2000 FY00: \$500,000 Total: \$2,000,000  
 Prin. Invest.: D R DOWNING  
 Tech. Officer: GSFC/J DASCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 415 UNIVERSITY OF KANSAS 4630**  
 EPSCOR PREPARATION PROGRAM  
 06/24/1999 - 06/30/2001 FY00: \$225,000 Total: \$450,000  
 Prin. Invest.: D DOWNING  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 3 52361 UNIVERSITY OF KANSAS 4631**  
 NASA GRADUATE STUDENT RESEARCHERS PROGRAM NASA GRADUATE  
 STUDENT RESEARCHERS PROGRAM  
 08/18/1999 - 08/14/2001 FY00: \$0 Total: \$22,000  
 Prin. Invest.: R TAGHAVI  
 Tech. Officer: GRC/M MEYER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 30029 UNIVERSITY OF KANSAS 4632**  
 RADAR INTERFEROMETRY FOR IMPROVED CROSS-TRACT RESOLUTION OF THE  
 THICKNESS OF THE GREENLAND ICE SHEET  
 10/17/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: S GOGINENI  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 11 - ASTRONOMY

**NGT 5 40065 UNIVERSITY OF KANSAS 4633**  
 KANSAS/NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 09/16/1998 - 03/31/2001 FY00: \$212,500 Total: \$637,500  
 Prin. Invest.: D R DOWNING  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50073 UNIVERSITY OF KANSAS 4634**  
 A HIGH RESOLUTION RADAR CHARACTERIZATION OF ICE IN TERRESTRIAL LIFE  
 08/26/1997 - 07/31/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* R G PLUMB  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50161 UNIVERSITY OF KANSAS 4635**  
 ESTIMATING SOIL MOISTURE OVER 4 TALLGRASS PRAIRIE USING ERS-2 SAR  
 10/02/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* J HARRINGTON  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50219 UNIVERSITY OF KANSAS 4636**  
 DEVELOPMENT OF RADAR SYSTEM FOR ACCUMULATION MEASUREMENT-  
 SESSF STUDENT: PANNIRSELVAM  
 09/17/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* G S PRASAD  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 2 1016 UNIVERSITY OF KANSAS MEDICAL CENTER 4637**  
 MICROGRAVITY & SIGNAL TRANSDUCTION PATHWAYS IN SPERM  
 10/12/1995 - 12/31/2000 FY00: \$3,000 Total: \$572,927  
*Prin. Invest.:* J S TASH  
*Tech. Officer:* ARC/C M WINGET, ARC/G C JANHS  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1985 WICHITA STATE UNIVERSITY 4638**  
 MODERNIZE AND EXPAND THE WATER IMPINGEMENT DATA BASE FOR  
 AIRCRAFT SURFACES  
 11/12/1996 - 03/15/2000 FY00: \$0 Total: \$396,975  
*Prin. Invest.:* M PAPADAKIS  
*Tech. Officer:* GRC/C S BIDWELL  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2137 WICHITA STATE UNIVERSITY 4639**  
 PILOT SIMULATOR TRAINING FOR AIRCRAFT ICING PILOT SIMULATOR  
 TRAINING FOR AIRCRAFT ICING  
 03/06/1998 - 01/26/2001 FY00: \$359,873 Total: \$812,259  
*Prin. Invest.:* D ELLIS, M PAODAKIS  
*Tech. Officer:* GRC/T H BOND  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2288 WICHITA STATE UNIVERSITY 4640**  
 STUDENT INTERN PROGRAM IN MICROGRAVITY COMBUSTION STUDENT  
 INTERN PROGRAM IN MICROGRAVITY COMBUSTION  
 08/27/1999 - 12/15/1999 FY00: -\$526 Total: \$9,214  
*Prin. Invest.:* D N KOERT  
*Tech. Officer:* GRC/D L DIETRICH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2324 WICHITA STATE UNIVERSITY 4641**  
 WATER DROPLET IMPINGEMENT PROGRAM - PHASE II WATER DROPLET  
 IMPINGEMENT PROGRAM - PHASE II  
 02/01/2000 - 01/31/2001 FY00: \$75,778 Total: \$75,778  
*Prin. Invest.:* D PAPADAKIS  
*Tech. Officer:* GRC/C BIDWELL  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 3435 WICHITA STATE UNIVERSITY 4642**  
 SPECTROSCOPIC PROPERTIES OF SUB STELLAR OBJECTS  
 10/01/1996 - 09/30/2000 FY00: \$0 Total: \$224,100  
*Prin. Invest.:* D ALEXANDER  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NCA 1 106 WICHITA STATE UNIVERSITY 4643**  
 GENERAL AVIATION PROGRAM/AGATE  
 02/24/1995 - 10/31/2000 FY00: \$1,081,854 Total: \$4,411,328  
*Prin. Invest.:* H WILLIFORD, D ELLIS  
*Tech. Officer:* LARC/W E RICKS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCA 3 111 WICHITA STATE UNIVERSITY 4644**  
 JOINT SPONSORED RESEARCH AGREEMENT - ICHING RESEARCH  
 02/22/1996 - 09/30/2000 FY00: \$6,000 Total: \$374,101  
*Prin. Invest.:* D ELLIS  
*Tech. Officer:* GRC/T H BOND  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 3 624 WICHITA STATE UNIVERSITY 4645**  
 TAILPLANE ICING PROGRAM - PHASE II TAILPLANE ICING PROGRAM -  
 PHASE II  
 06/08/1998 - 12/13/2000 FY00: \$175,210 Total: \$426,760  
*Prin. Invest.:* M PAPADAKIS, D ELLIS  
*Tech. Officer:* GRC/T P RATVASKY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 8 202 WICHITA STATE UNIVERSITY 4646**  
 "ROLE OF THE FILLER WIRE COMPOSITIONS IN CRACK NUCLEATION AND  
 PROPAGATION OF ALUMINUM WELDS"  
 06/08/2000 - 08/17/2001 FY00: \$62,000 Total: \$62,000  
*Prin. Invest.:* G E TALIA  
*Tech. Officer:* MSFC/A C NUNES, MSFC/C K RUSSELL  
*CASE Category:* 47 - METAL & MATERIALS ENGR

## KENTUCKY

**NAG 2 1121 UNIVERSITY OF KENTUCKY 4647**  
 CARBON NANOTUBULES: BUILDING BLOCKS FOR NANOMETER -SCALE  
 ENGINEERING  
 02/25/1997 - 10/31/1999 FY00: -\$651 Total: \$136,925  
*Prin. Invest.:* S B SINNOTT  
*Tech. Officer:* ARC/C LEVIT, ARC/D A BAILEY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1363 UNIVERSITY OF KENTUCKY 4648**  
 BIOMIMETIC DETECTION SCHEMES ON A MICROCENTRIFUGE PLATFORMS  
 (LABCD)  
 07/27/1999 - 12/14/2000 FY00: \$292,940 Total: \$434,506  
*Prin. Invest.:* S DAUNERT  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 2099 UNIVERSITY OF KENTUCKY 4649**  
 LARGE EDDY SIMULATION OF FLOWS IN TURBINE CASCADES USING  
 CONSERVATIVE UPWIND-BIASED 5TH ORDER NUMBE  
 12/23/1997 - 11/30/2000 FY00: \$82,068 Total: \$250,277  
*Prin. Invest.:* P G HVANG  
*Tech. Officer:* GRC/D E ASHPIS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 3223 UNIVERSITY OF KENTUCKY 4650**  
 PROBING THE CENTRAL REGIONS OF ACTIVE NUCLEI  
 05/15/1996 - 05/14/1999 FY00: \$0 Total: \$183,880  
*Prin. Invest.:* FERLAND  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3841 UNIVERSITY OF KENTUCKY 4651**  
 GAS DYNAMICS IN ACTIVE GALACTIC NUCLEI: BROAD LINE  
 02/28/1997 - 02/14/2001 FY00: \$0 Total: \$182,500  
*Prin. Invest.:* I SHLOSMAN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4235 UNIVERSITY OF KENTUCKY 4652**  
 THEORETICAL STUDIES OF INFRARED EMISSION FROM STAR  
 03/24/1997 - 03/31/2001 FY00: \$0 Total: \$253,900  
*Prin. Invest.:* D A VERNER  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4594 UNIVERSITY OF KENTUCKY 4653**  
 IN-SITU, REMOTE CHEMICAL SENSORS BASED ON THIN MAG  
 05/12/1997 - 01/14/2001 FY00: \$0 Total: \$376,695  
*Prin. Invest.:* C A GRIMES  
*Tech. Officer:* GSFC/D JAN  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 8148 UNIVERSITY OF KENTUCKY 4654**  
 ATOMIC DATA FOR ASTROPHYSICS DATABASE DEVELOPMENT  
 02/04/1999 - 12/31/1999 FY00: \$0 Total: \$49,849  
*Prin. Invest.:* D VERNER  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8165 UNIVERSITY OF KENTUCKY 4655**  
 QUANTITATIVE X-RAY - UV LINE AND CONTINUUM SPECTROSCOPY WITH  
 APPLICATION TO AGN  
 02/09/1999 - 01/31/2001 FY00: \$59,100 Total: \$116,805  
*Prin. Invest.:* G J FERLAND  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8212 UNIVERSITY OF KENTUCKY 4656**  
 FUNDAMENTAL PROBLEMS IN ASTROPHYSICAL PLASMAS (LTS A98)  
 02/26/1999 - 02/28/2001 FY00: \$77,783 Total: \$152,834  
*Prin. Invest.:* G J FERLAND  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 5193 UNIVERSITY OF KENTUCKY 4657**  
 TEMPERATURE FLUCTUATIONS IN THE ORION NEBULA AND NEBULAR  
 ABUNDANCE SCALE  
 11/01/1996 - 05/31/2000 FY00: \$0 Total: \$53,987  
*Prin. Invest.:* D J FERLAND  
*Tech. Officer:* ARC/D GOORITCH  
*CASE Category:* 11 - ASTRONOMY

**NCC 2 5383 UNIVERSITY OF KENTUCKY 4658**  
 COMPUTATIONAL INVESTIGATIONS OF CARBON NANOTUBE MATERIALS  
 05/22/2000 - 05/31/2001 FY00: \$44,872 Total: \$44,872  
*Prin. Invest.:* S SINNOT  
*Tech. Officer:* ARC/M MEYYA, ARC/H PARTRIDGE 111  
*CASE Category:* 43 - CHEMICAL ENGR

**NCC 2 5386 UNIVERSITY OF KENTUCKY 4659**  
 SIMULATIONS OF CARBON NANOTUBES IN NANOELECTRONICS AND BIO-  
 MATERIALS APPLICATIONS  
 06/08/2000 - 05/14/2001 FY00: \$25,000 Total: \$25,000  
*Prin. Invest.:* M MENON  
*Tech. Officer:* ARC/H PATRIDGE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 3 590 UNIVERSITY OF KENTUCKY 4660**  
 TURBULENCE & TRANSITION MODELING OF LOW PRESSURE TURBINE  
 FLOWS  
 12/17/1997 - 10/31/2000 FY00: \$177,516 Total: \$339,754  
*Prin. Invest.:* G HUANG  
*Tech. Officer:* GRC/D E ASHPIS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 1 52146 UNIVERSITY OF KENTUCKY 4661**  
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)  
 07/22/1996 - 09/30/1998 FY00: -\$2,319 Total: \$30,681  
*Prin. Invest.:* K D DIPPERY, S W SMITH  
*Tech. Officer:* LARC/M G GILBERT  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 1 52223 UNIVERSITY OF KENTUCKY 4662**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/10/1999 - 08/23/2001 FY00: \$22,000 Total: \$32,000  
*Prin. Invest.:* M ROCHE, J MAIN  
*Tech. Officer:* LARC/G C HORNER  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 5 71 UNIVERSITY OF KENTUCKY 4663**  
 GSRP TRAINING GRANT - GEORGE NELSON - SHAPE TUNING OF  
 EXTREMELY LARGE ORBITAL TELESCOPE MIRRORS  
 06/09/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* J A MAIN  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 8 52869 UNIVERSITY OF KENTUCKY 4664**  
 INVESTIGATING THE EFFECTS OF FOAM INFLATED DEPLOYABLE SPACE-  
 CRAFT STRUCTURES  
 07/27/1998 - 05/18/2000 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* J A MAIN  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 5 5142 UNIVERSITY OF LOUISVILLE 4665**  
 DEVELOPMENT OF GAS MICROSTRUCTURE DETECTORS FOR  
 GAMMA-RAY TELESCOPES  
 04/21/1997 - 04/20/2000 FY00: \$0 Total: \$264,284  
*Prin. Invest.:* W PITTS  
*Tech. Officer:* GSFC/H NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6913 UNIVERSITY OF LOUISVILLE 4666**  
 GENERAL CIRCULATION OF PLANETARY ATMOSPHERES  
 01/26/1998 - 12/31/2000 FY00: \$66,430 Total: \$224,430  
*Prin. Invest.:* T E DOWLING  
*Tech. Officer:* GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1509 UNIVERSITY OF LOUISVILLE 4667**  
 SHORT TERM QUANTITATIVE PRECIPITATION FORECASTING USING MULTI-  
 SENSOR REMOTE SENSING AND ETA MODEL  
 03/04/1998 - 02/02/2000 FY00: -\$15,283 Total: \$84,524  
*Prin. Invest.:* M N FRENCH  
*Tech. Officer:* MSFC/J SIMONDS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5373 UNIVERSITY OF LOUISVILLE 4668**  
 MICROARRAY ANALYSIS OF MICROGRAVITY-DEPENDENT GENE EXPRES-  
 SIONS IN NORMAL HUMAN FIBROBLASTS  
 03/30/2000 - 04/14/2001 FY00: \$95,000 Total: \$95,000  
*Prin. Invest.:* E WANG  
*Tech. Officer:* ARC/J W HINES, ARC/M M AVERNER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5374 UNIVERSITY OF LOUISVILLE 4669**  
 CLONING AND FUNCTIONAL CHARACTERIZATION OF NOVEL GENES  
 WHOSE EXPRESSIONS ARE MICROGRAVITY-DEPEN....  
 03/30/2000 - 04/14/2001 FY00: \$95,000 Total: \$95,000  
*Prin. Invest.:* E WANG  
*Tech. Officer:* ARC/J W HINES, ARC/M M AVERNER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 8383 WESTERN KENTUCKY UNIVERSITY 4670**  
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS  
 05/26/1999 - 05/31/2000 FY00: \$0 Total: \$2,118  
*Prin. Invest.:* M T CARINI  
*Tech. Officer:* GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8762 WESTERN KENTUCKY UNIVERSITY 4671**  
 STARBASE NETWORK  
 08/27/1999 - 09/14/2002 FY00: \$915,000 Total: \$1,915,000  
*Prin. Invest.:* C H MCGRUDER, 111  
*Tech. Officer:* GSFC/J D ROSENTHAL  
 CASE Category: 11 - ASTRONOMY

**NCC 5 222 WESTERN KENTUCKY UNIVERSITY 4672**  
 TO SUPPORT THE KENTUCKY NASA EXPERIMENTAL PROGRAM COMPETI-  
 TIVE RESEARCH  
 08/11/1997 - 06/30/2001 FY00: \$400,000 Total: \$1,800,000  
*Prin. Invest.:* R HACKNEY  
*Tech. Officer:* GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 396 WESTERN KENTUCKY UNIVERSITY 4673**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 - 05/31/2001 FY00: \$225,000 Total: \$450,000  
*Prin. Invest.:* R HACKNEY  
*Tech. Officer:* GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 3 52353 WESTERN KENTUCKY UNIVERSITY 4674**  
 SYNTHESIS AND CHARACTERIZATION OF ELECTRON-BEAM CU RED AND  
 THERMAL CURED BISMALEIMIDE-TRIAZINE COPOL  
 06/24/1999 - 07/31/2000 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* W PAN  
*Tech. Officer:* GRC/F J MONTEGANI  
 CASE Category: 12 - CHEMISTRY

**NGT 5 40051 WESTERN KENTUCKY UNIVERSITY 4675**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 01/30/1997 - 02/28/2002 FY00: \$262,650 Total: \$1,046,684  
*Prin. Invest.:* R HACKNEY  
*Tech. Officer:* GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## LOUISIANA

**NAG 8 1010 DILLARD UNIVERSITY 4676**  
 JOVE  
 11/19/1993 - 04/30/1999 FY00: -\$1,481 Total: \$103,148  
*Prin. Invest.:* G ROCHON, G LOVE  
*Tech. Officer:* MSFC/F SIX  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NAG 8 1392 GRAMBLING STATE UNIVERSITY 4677**  
 R/S "NLO POLYMERS THAT HAVE ENHANCED THERMAL STABILITY AND  
 LOW ALIGNMENT DECAY"  
 07/23/1997 - 10/31/2000 FY00: \$8,871 Total: \$287,715  
*Prin. Invest.:* C WALTON  
*Tech. Officer:* MSFC/B PENN  
 CASE Category: 11 - ASTRONOMY

**NCC 3 512 GRAMBLING STATE UNIVERSITY 4678**  
 POLYMERIZABLE MONOMER REACTANTS-MODIFIED POLYIMIDES  
 11/04/1996 - 07/27/2000 FY00: \$0 Total: \$211,457  
*Prin. Invest.:* D E HUBBARD  
*Tech. Officer:* GRC/M A MEADOR  
 CASE Category: 12 - CHEMISTRY

**NAG 2 1020 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4679**  
 DEVELOPMENTAL ANALYSIS OF SEEDS GROWN ON MIR  
 01/18/1996 - 11/30/1999 FY00: \$0 Total: \$371,575  
*Prin. Invest.:* M E MUSGRAVE  
*Tech. Officer:* ARC/C M WINGET, ARC/G C JAHNS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1318 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4680**  
 PARALLEL MULTISCALE ALGORITHMS FOR VIRTUAL DESIGN OF NANO-  
 ELECTRO-MECHANICAL SYSTME  
 04/16/1999 - 03/31/2000 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* R K KALIA  
*Tech. Officer:* ARC/S SAINI  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1320 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4681**  
 A RADAPPERTIZATION PROTOCOL FOR SAMPLES RETURNED TO EARTH  
 FROM MARS  
 05/10/1999 - 04/14/2001 FY00: \$29,400 Total: \$58,800  
 Prin. Invest.: J R BATTISTA  
 Tech. Officer: ARC/D L DEVINCENZI  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 3 1641 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4682**  
 LARGE EDDY SIMULATIONS IMPROVED TURBULENCE MODELING OF FILM  
 COOLING  
 07/12/1994 - 09/30/1998 FY00: \$2,959 Total: \$249,395  
 Prin. Invest.: S ACHARYA  
 Tech. Officer: GRC/J R SCHWAB  
 CASE Category: 41 - AERONAUTICAL ENGRN

**NAG 3 2361 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4683**  
 THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE STABILITY OF  
 AN EVAPORATING CONSTRAINED VAPOR BUBB  
 04/03/2000 - 11/30/2003 FY00: \$27,500 Total: \$27,500  
 Prin. Invest.: H WONG, NONE  
 Tech. Officer: GRC/J SKARDA  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3082 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4684**  
 ACCRETION ONTO MAGNETIC DEGENERATE STARS  
 09/22/1995 - 09/30/1999 FY00: \$0 Total: \$173,943  
 Prin. Invest.: G CHANMUGAM  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3338 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4685**  
 UNDERSTANDING THE EVOLUTION OF H-DEFICIENT STARS  
 11/13/1996 - 11/14/1998 FY00: \$0 Total: \$39,800  
 Prin. Invest.: G C CLAYTON  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3531 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4686**  
 DO WE NEED REALISTIC MODELING OF COMPOSITE INTERSTELLAR DUST  
 GRAINS  
 11/15/1996 - 11/14/1998 FY00: \$0 Total: \$148,000  
 Prin. Invest.: G CLAYTON  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3770 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4687**  
 ADVANCED CALORIMETER FOR COMPOSITION OF ELEMENTS OF ACCESS)  
 TO STUDY > 10 TEV COSMIC RAYS  
 03/07/1997 - 01/31/1999 FY00: \$0 Total: \$65,736  
 Prin. Invest.: D P WEFEL  
 Tech. Officer: GSFC/R HOWARD  
 CASE Category: 13 - PHYSICS

**NAG 5 5064 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4688**  
 THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERI-  
 MENT  
 05/03/1996 - 05/06/2001 FY00: \$388,800 Total: \$2,406,800  
 Prin. Invest.: J P WEFEL  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 5127 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4689**  
 MINUTE OF ARC RESOLUTION GAMMA-RAY IMAGING EXPERIMENT  
 (MARGIE)  
 07/02/1997 - 09/30/2000 FY00: \$49,825 Total: \$149,825  
 Prin. Invest.: M CHERRY  
 Tech. Officer: GSFC/H NEEDLEMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 5177 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4690**  
 TRANSITION RADIATION DETECTORS FOR HIGH ENERGY MEASUREMENTS  
 ON ACCESS  
 04/24/1998 - 03/31/2001 FY00: \$26,000 Total: \$240,000  
 Prin. Invest.: M L CHERRY  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5208 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4691**  
 ULTRA-LONG DURATION MISSION CONCEPT FOR PROPOSAL FOR A  
 MINUTE-OF-ARC RESOLUTION GAMMA-RAY EXPERIMENT  
 09/24/1998 - 11/30/2000 FY00: \$0 Total: \$110,570  
 Prin. Invest.: M CHERRY  
 Tech. Officer: WFF/B A MERRITT  
 CASE Category: 19 - PHYSICALSCIENCE, OTHER

**NAG 5 5297 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4692**  
 SIFTER SIFTER  
 06/12/2000 - 06/07/2001 FY00: \$41,500 Total: \$41,500  
 Prin. Invest.: M L CHERRY  
 Tech. Officer: WFF/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 7355 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4693**  
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS  
 04/29/1998 - 01/14/2000 FY00: \$0 Total: \$2,500  
 Prin. Invest.: J STACY  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7933 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4694**  
 EXTRAGALACTIC INTERSTELLAR DUST \_\_\_\_\_ (LTSA -  
 NEW)  
 12/14/1998 - 12/31/2000 FY00: \$59,961 Total: \$132,827  
 Prin. Invest.: G C CLAYTON  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8100 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4695**  
 A SURVEY OF ACTIVE GALAXIES AND HIGH-LATITUDE GAMMA-RAY  
 SOURCES USING COMPTEL ALL-SKY MAXIMUM-LIK  
 01/25/1999 - 01/31/2001 FY00: \$0 Total: \$7,500  
 Prin. Invest.: J STACY  
 Tech. Officer: GSFC/J NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8497 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4696**  
 NUMERICAL HYDRODYNAMICS OF MASS-TRANSFERRING BINARIES (ATP  
 - 98)  
 05/18/1999 - 04/30/2001 FY00: \$56,520 Total: \$116,520  
 Prin. Invest.: J FRANK  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9203 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4697**  
 MOVING BEYOND THE STANDARD PARADIGM/THE IMPORTANCE OF  
 INTERSTELLAR DUST FROM THE MILKY WAY TO HIGH R  
 03/16/2000 - 03/14/2001 FY00: \$59,902 Total: \$59,902  
*Prin. Invest.:* G CLAYTON  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9245 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4698**  
 WORLD DELTAS: A BASELINE AND CHANGES.  
 03/14/2000 - 03/31/2001 FY00: \$73,580 Total: \$73,580  
*Prin. Invest.:* O HUH  
*Tech. Officer:* GSFC/H FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9709 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4699**  
 USING IR EMISSION TO CONSTRAIN THE ROLE OF DUST IN GALAXIES  
 07/25/2000 - 06/30/2001 FY00: \$48,901 Total: \$48,901  
*Prin. Invest.:* G C CLAYTON  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1048 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4700**  
 ULTRAVIOLET EXTINCTION AND POLARIZATION OF INTER- STELLAR DUST  
 IN THE LARGE MAGELLANIC CLOUD  
 03/15/1994 - 05/31/1999 FY00: -\$1 Total: \$151,298  
*Prin. Invest.:* G C CLAYTON, J GREEN  
*Tech. Officer:* MSFC/J OWENS  
*CASE Category:* 31 - ATMOSPHERICSCIENCE

**NAG 8 1731 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4701**  
 ADVANCED LIGHT WEIGHT MAGNET PROGRAM  
 07/25/2000 - 09/30/2000 FY00: \$33,256 Total: \$33,256  
*Prin. Invest.:* R G GOODRICH  
*Tech. Officer:* MSFC/T ROBERTSON  
*CASE Category:* 13 - PHYSICS

**NAG10 139 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4702**  
 PLANT REPRODUCTIVE DEVELOPMENT IN MICROGRAVITY  
 06/07/1994 - 12/31/2000 FY00: \$6,000 Total: \$533,508  
*Prin. Invest.:* M E MUSGRAVE  
*Tech. Officer:* KSC/W M KNOTT  
*CASE Category:* 55 - AGRICULTURE

**NCC 2 5320 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4703**  
 SCALABLE SIMULATION& DATA MANAGEMENT FOR COMPUTATI ONAL  
 NANOELECTRONICS ON THE INFORMATION POWER GRI  
 05/10/1999 - 08/31/2001 FY00: \$37,000 Total: \$132,000  
*Prin. Invest.:* A NAKANO  
*Tech. Officer:* ARC/S SAINI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 5 167 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4704**  
 NASA EPSCOR PROGRAM  
 11/02/1996 - 05/31/2001 FY00: \$400,000 Total: \$2,300,000  
*Prin. Invest.:* J P WEFEL  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 393 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4705**  
 NASA EPSCOR PREPARATION PROGRAM  
 05/13/1999 - 08/14/2001 FY00: \$225,485 Total: \$450,485  
*Prin. Invest.:* J WEFEL  
*Tech. Officer:* HQ/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 8 201 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4706**  
 ADVANCED FLIGHT CONTROLLER DESIGN FOR X-33 USING TRAJECTORY  
 LINEARIZATION  
 04/24/2000 - 09/30/2000 FY00: \$51,782 Total: \$51,782  
*Prin. Invest.:* J ZHU  
*Tech. Officer:* MSFC/C E HALL  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40035 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4707**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIPPROGRAM.  
 02/13/1997 - 02/28/2001 FY00: \$256,250 Total: \$973,750  
*Prin. Invest.:* J P WEFEL  
*Tech. Officer:* GSFC/L KEFFER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT13 52743 LOUISIANA STATE UNIVERSITY - BATON ROUGE 4708**  
 A TESTING OF REMOTE SENSING METHODS AT THE BROUSSARD MOUNDS  
 ITE  
 07/12/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* B S GOODWIN  
*Tech. Officer:* SSC/R TRAVIS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2136 LOUISIANA TECH UNIVERSITY 4709**  
 IMPLICIT AND MULTIGRID METHOD FOR IDEAL MULTIGRID CONVERGENCE  
 01/15/1999 - 06/30/1999 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* C LIU  
*Tech. Officer:* LARC/R SWANSON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 4293 NORTHEAST LOUISIANA UNIVERSITY 4710**  
 ANCIENT CRUST AND LACUSTRINE PLAIN SITES FOR MARS  
 04/18/1997 - 03/31/2001 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* D A DE HON  
*Tech. Officer:* GSFC/J M BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1206 SOUTHEASTERN LOUISIANA UNIVERSITY 4711**  
 JOVE  
 09/25/1995 - 08/31/2000 FY00: \$0 Total: \$106,185  
*Prin. Invest.:* W A PARKISON, W N NORTON, W N NORTON  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 2 1006 SOUTHERN UNIV & A&M COLLEGE 4712**  
 QFT DESIGN FRAMEWORK FOR ROTORCRAFT CONTROL  
 08/25/1995 - 11/30/1998 FY00: -\$11,930 Total: \$188,012  
*Prin. Invest.:* L LAWSON  
*Tech. Officer:* ARC/M B TISCHLER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 1015 SOUTHERN UNIV & A&M COLLEGE 4713**  
 LEARNING & GENERALIZATION USING NEURAL NETWORKS WITH  
 APPLICATIONS TO ON-LINE F-16 REFERENCE MODEL  
 09/22/1995 - 07/31/1999 FY00: \$0 Total: \$299,988  
 Prin. Invest.: S K TRIVEDI, J P MCGUIRK  
 Tech. Officer: ARC/A J HATCH, ARC/S P COLOMBANO  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 2 1159 SOUTHERN UNIV & A&M COLLEGE 4714**  
 AIR TRAFFIC CONTROL USING NEURAL NETWORKS  
 08/25/1997 - 03/31/2000 FY00: \$0 Total: \$204,000  
 Prin. Invest.: S K TRIVEDI  
 Tech. Officer: ARC/G S LEE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1273 SOUTHERN UNIV & A&M COLLEGE 4715**  
 INTERACTIVE CLASSIFICATION TECHNOLOGY  
 12/29/1998 - 12/31/2000 FY00: \$96,239 Total: \$192,478  
 Prin. Invest.: C DEBESSONET  
 Tech. Officer: ARC/P NORVIG  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 3 1825 SOUTHERN UNIV & A&M COLLEGE 4716**  
 DEVELOPMENT OF INTEGRATED METHODOLOGY FOR ENGINE C  
 OMPONENT DESIGN AND DESIGN OPTIMIZATION  
 04/17/1996 - 06/30/2000 FY00: \$0 Total: \$360,000  
 Prin. Invest.: R A MIRSHAMS, B Q LI  
 Tech. Officer: GRC/L BERKE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2076 SOUTHERN UNIV & A&M COLLEGE 4717**  
 KNOWLEDGE PRESERVATION FOR DESIGN OF ROCKET SYSTEM S  
 09/26/1997 - 12/31/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: D MOREMAN, J DYER  
 Tech. Officer: GRC/D F NOGA  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 3660 SOUTHERN UNIV & A&M COLLEGE 4718**  
 EFFECTS OF AEROSOLS AND CLOUDS INTERACTION ON UV, PAR, AND  
 CROP YIELDS  
 11/15/1996 - 05/14/2000 FY00: \$0 Total: \$299,976  
 Prin. Invest.: C H YANG  
 Tech. Officer: GSFC/A DOUGLAS  
 CASE Category: 13 - PHYSICS

**NAG 5 5066 SOUTHERN UNIV & A&M COLLEGE 4719**  
 THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERI-  
 MENT  
 06/17/1996 - 12/31/2000 FY00: \$112,500 Total: \$497,500  
 Prin. Invest.: A R FAZELY  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 7157 SOUTHERN UNIV & A&M COLLEGE 4720**  
 DEVELOPMENT OF BALLOON-BORNE X-RAY/GAMMA DETECTORS FOR  
 STUDIES OF HIGH ENERGY ASTROPHYSICAL SOURCE  
 03/11/1998 - 02/28/2001 FY00: \$99,220 Total: \$297,660  
 Prin. Invest.: J STACY  
 Tech. Officer: GSFC/J TUELLER  
 CASE Category: 13 - PHYSICS

**NAG 5 8552 SOUTHERN UNIV & A&M COLLEGE 4721**  
 PROGRAM TO INCREASE THE PURSUIT OF EDUCATION AND LEARNING IN  
 ENGINEERING AND SCIENCE  
 06/15/1999 - 05/31/2001 FY00: \$0 Total: \$1,000,000  
 Prin. Invest.: D BAGAYOKO  
 Tech. Officer: GSFC/B WHITE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1495 SOUTHERN UNIV & A&M COLLEGE 4722**  
 RELATIONSHIP BETWEEN STRUCTURE AND MAGNETIC AND ELECTRON  
 TRANSPORT PROPERTIES IN R1-AXMN03  
 06/01/1998 - 05/31/2001 FY00: \$70,797 Total: \$238,892  
 Prin. Invest.: H L LAWRENCE  
 Tech. Officer: MSFC/D SCHMIDT  
 CASE Category: 13 - PHYSICS

**NAG 8 1536 SOUTHERN UNIV & A&M COLLEGE 4723**  
 MODELING AND ANALYSIS OF HEAT-ACTIVATED THERMAL COUPLES  
 06/08/1998 - 06/30/2001 FY00: \$99,958 Total: \$298,750  
 Prin. Invest.: M A STUNNLEFIELD  
 Tech. Officer: MSFC/G GORDON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1625 SOUTHERN UNIV & A&M COLLEGE 4724**  
 FIBERGLAST INSTRUMENT DEVELOPMENT  
 09/22/1999 - 08/31/2001 FY00: \$0 Total: \$99,510  
 Prin. Invest.: J G STACY  
 Tech. Officer: MSFC/G J FISHMAN  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 8 1627 SOUTHERN UNIV & A&M COLLEGE 4725**  
 EDUCATION GRANT "AN INTEGRATED THEORY AND LAB LEARNING  
 EXPERIENCE  
 09/09/1999 - 09/08/2001 FY00: \$40,582 Total: \$140,582  
 Prin. Invest.: L L LAURENCE  
 Tech. Officer: MSFC/W J LOVE, MSFC/A C BEAM  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1633 SOUTHERN UNIV & A&M COLLEGE 4726**  
 VIRTUAL REALITY INNOVATIONS IN TRAINING AND SCIENCE, ENGINEERING  
 AND MATHEMATICS EDUCATION.  
 09/15/1999 - 07/31/2000 FY00: \$0 Total: \$99,354  
 Prin. Invest.: M C DUNN  
 Tech. Officer: MSFC/A BEAM, MSFC/W LOVE  
 CASE Category: 21 - MATHEMATICS

**NAG10 182 SOUTHERN UNIV & A&M COLLEGE 4727**  
 FRACTOGRAPHIC STUDIES & ANALYSES IN DATA BASE DOCUMENTATION &  
 DEVELOPMENT  
 01/11/1996 - 08/10/1999 FY00: -\$2,811 Total: \$197,189  
 Prin. Invest.: R M DIVWAN  
 Tech. Officer: KSC/R LEE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG10 210 SOUTHERN UNIV & A&M COLLEGE 4728**  
 RESEARCH & EDUCATION EXPERIENCES FOR MINORITY UNDERGRAD-  
 UATES IN COMPOSITE MATERIAL  
 09/01/1997 - 01/31/2001 FY00: \$0 Total: \$400,000  
 Prin. Invest.: S S CHEHL  
 Tech. Officer: KSC/S MCDANIELS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG13 99003 SOUTHERN UNIV & A&M COLLEGE 4729**  
 NOISE REMOVAL DECONVOLUTION AND VIBRATION RELAXATION STUDIES  
 TO ENHANCE PLUME DIAGNOSTIC TECH.  
 03/11/1998 - 05/14/2001 FY00: \$99,924 Total: \$299,772  
 Prin. Invest.: A AMINI  
 Tech. Officer: SSC/B B ST. CYR  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG13 99013 SOUTHERN UNIV & A&M COLLEGE 4730**  
 MATHEMATICS AND SCIENCE ENRICHMENT ACTIVITIES FOR MIDDLE AND  
 HIGH SCHOOL STUDENTS  
 07/15/1998 - 07/14/2001 FY00: \$100,000 Total: \$300,000  
 Prin. Invest.: M SUBBLEFIELD  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 21 - MATHEMATICS

**NCC 8 138 SOUTHERN UNIV & A&M COLLEGE 4731**  
 RESEARCH "COMPOSITE TRUSS DESIGN OPTIMIZATION"  
 07/15/1997 - 07/14/2000 FY00: \$0 Total: \$331,966  
 Prin. Invest.: C WANG  
 Tech. Officer: MSFC/D FORD  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 8 156 SOUTHERN UNIV & A&M COLLEGE 4732**  
 FOR RESEARCH ENTITLED: "STRUCTURAL MATERIALS FAILURE ANALYSIS  
 DATABASE"  
 09/28/1998 - 08/31/2001 FY00: \$65,000 Total: \$150,000  
 Prin. Invest.: J DYER  
 Tech. Officer: MSFC/G JERMAN  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NCC13 00010 SOUTHERN UNIV & A&M COLLEGE 4733**  
 PROGRAM TO INCREASE PURSUIT OF EDUCATION AND LEARNING IN ENGI-  
 NEERING AND SCIENCES (PIPLINES)  
 09/25/2000 - 09/24/2001 FY00: \$915,000 Total: \$915,000  
 Prin. Invest.: D BAGAYOKO  
 Tech. Officer: SSC/R TRAVIS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT13 52720 SOUTHERN UNIV & A&M COLLEGE 4734**  
 1999 NASA/ASEE SUMMER FACULTY FELLOWSHIP PROGRAM AT STENNIS  
 SPACE CENTER  
 04/01/1999 - 09/30/2000 FY00: \$0 Total: \$205,000  
 Prin. Invest.: E HILDRETH  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT13 52744 SOUTHERN UNIV & A&M COLLEGE 4735**  
 RESEARCH DESIGN AND METHODOLOGY FOR A REMOTE SENSING  
 SYSTEM TO PROVIDE NASA/SSC SAFETY  
 07/12/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: G M LANE  
 Tech. Officer: SSC/R TRAVIS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG13 52 SOUTHERN UNIVERSITY - NEW ORLEANS 4736**  
 NASA/SUNO PARTNERSHIP FOR EXCELLENCE IN MATH & SCIENCE EDUCA-  
 TION  
 06/30/1997 - 04/30/2000 FY00: \$0 Total: \$387,137  
 Prin. Invest.: P HEATH, R PERRY, NONE  
 Tech. Officer: JSC/N SULLIVAN  
 CASE Category: 21 - MATHEMATICS

**NAG 2 1378 TULANE UNIVERSITY 4737**  
 EFFECT OF SIMULATED MICROGRAVITY ON GENE EXPRESSION IN THE  
 ENTERIC PATHOGEN SALMONELLA TYPHIMURIUM  
 08/19/1999 - 07/31/2000 FY00: \$123,300 Total: \$204,300  
 Prin. Invest.: C A NICKERSON  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 8570 TULANE UNIVERSITY 4738**  
 ADVANCED METHODS FOR STORAGE AND RETRIEVAL IN IMAGE DATA-  
 BASES  
 05/24/1999 - 06/30/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: C KOUTSOUGERAS  
 Tech. Officer: GSFC/K MOE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 8 1362 TULANE UNIVERSITY 4739**  
 FOR RESEARCH--PRODUCTION OF 125 DIOH D3 BY RENAL EPITHELIAL  
 CELLS IN SIMULATED MICROGRAVITY CULTURE  
 06/01/1997 - 11/30/2000 FY00: \$216,000 Total: \$690,000  
 Prin. Invest.: T HAMMOND  
 Tech. Officer: JSC/S R GONDA  
 CASE Category: 56 - MEDICAL

**NAG 9 811 TULANE UNIVERSITY 4740**  
 DIFFERENTIATION OF NORMAL HUMAN RENAL EPITHELIAL CELLS IN  
 MICROGRAVITY  
 03/08/1996 - 03/17/2000 FY00: \$0 Total: \$766,000  
 Prin. Invest.: D HAMMOND  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 826 TULANE UNIVERSITY 4741**  
 CELL CULTIVATION  
 08/09/1995 - 01/15/2001 FY00: \$0 Total: \$424,000  
 Prin. Invest.: K O'CONNER  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5011 TULANE UNIVERSITY 4742**  
 CONSTRUCTION OF A SPECIALIZED CLONING STRAIN OF E COLI FOR THE  
 NITRATE REDUCTASE GENES OF HALOFERAX  
 11/24/1993 - 11/30/1998 FY00: -\$20,743 Total: \$8,957  
 Prin. Invest.: E J JOHNSON  
 Tech. Officer: ARC/A POHORILLE  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT13 52717 TULANE UNIVERSITY 4743**  
 EFFECTS OF ULTRAVIOLET RADIATION ON THE COMPOSITION AND  
 MICROBIAL UTILIZATION  
 07/13/1998 - 07/31/1999 FY00: -\$699 Total: \$21,301  
 Prin. Invest.: E ENGELHAUPT  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NGT13 52722 TULANE UNIVERSITY 4744**  
 DYNAMIC PARTICLE PROCESSES & BIOGEOCHEMICAL MATERIAL FLUX IN  
 RIVER DOMINATED OCEAN MARGINS  
 07/28/1999 - 07/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: B MCKEE  
 Tech. Officer: JSC/R TRAVIS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER



<b>NGT13 52745</b> <b>TULANE UNIVERSITY</b> <b>4745</b> SOURCE AND TRANSPORT OF ORGANIC CARBON IN THE WATER COLUMN AND SEDIMENT OF THE MS PLUME 07/12/2000 - 07/31/2001                      FY00: \$21,992                      Total: \$21,992 <i>Prin. Invest.:</i> J CORBINO, T BIANCHI <i>Tech. Officer:</i> SSC/R TRAVIS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NGT13 52719</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4753</b> THERMAL AND MECHANICAL ANALYSIS OF HYDROGEN TRANSFER VALVES 07/13/1998 - 07/31/2000                      FY00: \$0                      Total: \$110,000 <i>Prin. Invest.:</i> Y TRAYHAM <i>Tech. Officer:</i> SSC/A JOYCE <i>CASE Category:</i> 41 - AERONAUTICAL ENGR
<b>NAG 3 1906</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4746</b> GROWTH AND MORPHOLOGY OF PHASE SEPARATING SUPERCRITICAL FLUIDS 06/10/1996 - 06/09/2000                      FY00: \$0                      Total: \$474,998 <i>Prin. Invest.:</i> J P DROSKE <i>Tech. Officer:</i> GRC/W B ALSTON <i>CASE Category:</i> 12 - CHEMISTRY	<b>NGT13 52721</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4754</b> NUMERICAL ANALYSIS OF THERMAL STRATIFICATION AND BEYSERING IN LIQUID PROPELLANT STORAGE TANKS 07/22/1999 - 07/31/2001                      FY00: \$22,000                      Total: \$44,000 <i>Prin. Invest.:</i> K M AKYUZLU <i>Tech. Officer:</i> SSC/R TRAVIS <i>CASE Category:</i> 21 - MATHEMATICS
<b>NAG 3 1915</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4747</b> A GEOPHYSICAL FLOW EXPERIMENT IN A COMPRESSIBLE CRITICAL FLUID 07/16/1996 - 07/17/1999                      FY00: -\$3,987                      Total: \$136,013 <i>Prin. Invest.:</i> J HEGSETH <i>Tech. Officer:</i> GRC/R A WILKINSON <i>CASE Category:</i> 13 - PHYSICS	<b>NGT13 52740</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4755</b> OPTIMIZATION OF SPACE FLIGHT SYSTEM GROUND-BASED PROCESSING 05/22/2000 - 05/31/2001                      FY00: \$22,000                      Total: \$22,000 <i>Prin. Invest.:</i> R SAXTON <i>Tech. Officer:</i> SSC/R TRAVIS <i>CASE Category:</i> 49 - ENGINEERING, OTHER
<b>NAG 3 2447</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4748</b> GEOPHYSICAL FLOW EXPERIMENT IN A ROTATING SPHERICAL CAPACITOR 05/30/2000 - 11/30/2003                      FY00: \$34,135                      Total: \$34,135 <i>Prin. Invest.:</i> J HEGSETH <i>Tech. Officer:</i> GRC/F P CHIARAMONTEH <i>CASE Category:</i> 49 - ENGINEERING, OTHER	<b>NAG 2 1423</b> <b>UNIVERSITY OF SOUTHWESTERN LOUISIANA</b> <b>4756</b> ANALYSIS OF THE GRAVISENSING SYSTEM IN CHARA 07/18/2000 - 12/31/2000                      FY00: \$52,325                      Total: \$52,325 <i>Prin. Invest.:</i> K H HASENSTEIN <i>Tech. Officer:</i> ARC/R D MACELROY, ARC/M M AVERNER <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)
<b>NAG 8 1116</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4749</b> JOVE 01/10/1995 - 05/31/2000                      FY00: \$0                      Total: \$143,964 <i>Prin. Invest.:</i> J J HEGSETH, M L JOHNSON, J J HOWARD <i>Tech. Officer:</i> MSFC/F SIX <i>CASE Category:</i> 99 - MULTIDISCIPL, OTHER	<b>NAG 5 2842</b> <b>UNIVERSITY OF SOUTHWESTERN LOUISIANA</b> <b>4757</b> INTELLIGENT INFORMATION FUSION AND MANAGEMENT PROTOTYPE APPLICABLE TO EOSDIS 12/14/1994 - 12/31/1999                      FY00: \$0                      Total: \$155,000 <i>Prin. Invest.:</i> N PISSINOU <i>Tech. Officer:</i> GSFC/W CAMPBELL <i>CASE Category:</i> 11 - ASTRONOMY
<b>NCC 2 5376</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4750</b> LIFE IN EXTREME ENVIRONMENTS RESEARCH 03/30/2000 - 03/31/2001                      FY00: \$15,000                      Total: \$15,000 <i>Prin. Invest.:</i> Z ROSENZWEIG <i>Tech. Officer:</i> ARC/M T FLYNN, ARC/J HINES <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)	<b>NAG 5 7127</b> <b>UNIVERSITY OF SOUTHWESTERN LOUISIANA</b> <b>4758</b> REACTIVE INFORMATION FUSION APPLICABLE TO NASA'S REGIONAL APPLICATION CENTER PROJECT 03/02/1998 - 09/30/2000                      FY00: \$0                      Total: \$75,000 <i>Prin. Invest.:</i> D PISSINOU <i>Tech. Officer:</i> GSFC/W CAMPBELL <i>CASE Category:</i> 22 - COMPUTER SCIENCE
<b>NGT13 52706</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4751</b> THE APPLICATION OF THE NONCLASSICAL DYNAMICAL THEORY OF THERMO-ELASTICITY OF THE COOLING TANK 05/23/1996 - 03/31/2000                      FY00: -\$1,543                      Total: \$64,457 <i>Prin. Invest.:</i> D PURI <i>Tech. Officer:</i> SSC/D JOYCE <i>CASE Category:</i> 41 - AERONAUTICAL ENGR	<b>NAG10 190</b> <b>UNIVERSITY OF SOUTHWESTERN LOUISIANA</b> <b>4759</b> RESPONSE SYSTEM OF PLANTS 03/25/1996 - 11/01/2000                      FY00: \$110,500                      Total: \$442,358 <i>Prin. Invest.:</i> K H HASENSTEIN <i>Tech. Officer:</i> KSC/W M KNOTT <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)
<b>NGT13 52714</b> <b>UNIVERSITY OF NEW ORLEANS</b> <b>4752</b> DIONNEI-MELISSA DEBOSE/USING SINDA/FLUENT TO DEVELOP COMPUTER MODEL APPLICATIONS FOR SSC 10/09/1997 - 07/31/2000                      FY00: \$0                      Total: \$55,000 <i>Prin. Invest.:</i> E RUSSO <i>Tech. Officer:</i> SSC/A JOYCE <i>CASE Category:</i> 22 - COMPUTER SCIENCE	<b>NAG 8 1609</b> <b>XAVIER UNIVERSITY - LOUISIANA</b> <b>4760</b> "TEACHER AND CURRICULUM ENHANCEMENT PROGRAM" 05/25/1999 - 05/24/2002                      FY00: \$200,000                      Total: \$400,000 <i>Prin. Invest.:</i> R P HALE <i>Tech. Officer:</i> MSFC/W LOVE <i>CASE Category:</i> 21 - MATHEMATICS

**NAG13 53** **XAVIER UNIVERSITY - LOUISIANA** **4761**  
 PROJECT KAIZEN SAME  
 06/19/1997 - 06/17/2000 FY00: \$0 Total: \$376,871  
 Prin. Invest.: R P HALE  
 Tech. Officer: SSC/N SULLIVAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG13 98006** **XAVIER UNIVERSITY - LOUISIANA** **4762**  
 SEEING THE EARTH: USING REMOTE SENSING TECHNOLOGIES TO STIR  
 IMAGINATION OF STUDENTS  
 04/20/1998 - 04/19/2001 FY00: \$100,000 Total: \$300,000  
 Prin. Invest.: S O'CONNOR  
 Tech. Officer: JSC/A JOYCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 90084** **XAVIER UNIVERSITY - LOUISIANA** **4763**  
 SOAR 2 SUMMER BRIDGE PROGRAM  
 09/09/1997 - 04/30/2001 FY00: \$151,175 Total: \$590,023  
 Prin. Invest.: G BAKER  
 Tech. Officer: GSFC/L RANDOLPH  
 CASE Category: 49 - ENGINEERING, OTHER

## MAINE

**NAG 5 6002** **UNIVERSITY OF MAINE - ORONO** **4764**  
 SOILS, WATER, PEOPLE, AND PIXELS: A STUDY OF NANG  
 09/11/1997 - 07/14/2000 FY00: \$71,250 Total: \$569,993  
 Prin. Invest.: R RINDFUSS  
 Tech. Officer: HQ/A JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6041** **UNIVERSITY OF MAINE - ORONO** **4765**  
 TIME-SERIES FOREST CHANGE, LAND-COVER/LAND-USE CON ECONOMIC  
 DRIVING FORCES IN THE NORTHERN PETEN DIS  
 07/23/1997 - 07/31/2001 FY00: \$0 Total: \$232,000  
 Prin. Invest.: S SADER  
 Tech. Officer: GSFC/A JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6558** **UNIVERSITY OF MAINE - ORONO** **4766**  
 BIOLOGICAL-PHYSICAL COUPLING IN THE GULF OF MAINE: SATELLITE  
 AND MODEL SSTUDIES IN PHYTOPLANKTON VA  
 10/27/1997 - 10/31/2000 FY00: \$90,072 Total: \$351,586  
 Prin. Invest.: A C THOMAS  
 Tech. Officer: GSFC/J A MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6604** **UNIVERSITY OF MAINE - ORONO** **4767**  
 PHYTOPLANKTON VARIABILITY IN EASTERN BOUNDARY CURR ENTS:  
 CONNECTIONS TO PHYSICAL FORCING  
 12/11/1997 - 11/30/2000 FY00: \$137,291 Total: \$389,289  
 Prin. Invest.: A THOMAS  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6672** **UNIVERSITY OF MAINE - ORONO** **4768**  
 UNIVERSITY OF MAINE: CENTER OF EXCELLENCE IN REMOTE SENSING  
 APPLICATIONS  
 12/16/1997 - 09/30/1998 FY00: \$0 Total: \$247,868  
 Prin. Invest.: S A SADER  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8712** **UNIVERSITY OF MAINE - ORONO** **4769**  
 MONITORING THE MESOAMERICAN BIOLOGICAL CORRIDOR  
 07/26/1999 - 05/31/2001 FY00: \$90,078 Total: \$180,114  
 Prin. Invest.: S A SADER  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9913** **UNIVERSITY OF MAINE - ORONO** **4770**  
 RASCAL-A REMOTE AUTONOMOUS SYSTEM FOR THE CONTROL OF ALTI-  
 METRY  
 09/14/2000 - 09/14/2001 FY00: \$12,619 Total: \$12,619  
 Prin. Invest.: G S HAMILTON  
 Tech. Officer: GSFC/J ZWALLY  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9959** **UNIVERSITY OF MAINE - ORONO** **4771**  
 CIS NET: IN SITU AND REMOTE MONITORING OF PRODUCTIVITY AND  
 NUTRIENT CYCLES IN PUGET SOUND  
 09/12/2000 - 12/31/2001 FY00: \$75,558 Total: \$75,558  
 Prin. Invest.: M PERRY  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG13 98008** **UNIVERSITY OF MAINE - ORONO** **4772**  
 FOREST MONITORING AND MULTISENSOR RESEARCH IN MAINE'S  
 INDUSTRIAL FOREST  
 04/30/1998 - 04/29/2001 FY00: \$150,000 Total: \$400,000  
 Prin. Invest.: S SADER  
 Tech. Officer: JSC/B GRAHAM  
 CASE Category: 55 - AGRICULTURE

**NGT 5 30353** **UNIVERSITY OF MAINE - ORONO** **4773**  
 THE ROLE OF CLAY MINERALOGY ON SOIL C ACCUMULATION & LOSS  
 ALONG A TROPICAL FOREST ELEVATION (CLIMATE  
 08/24/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: L OSHER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1219** **UNIVERSITY OF NEW ENGLAND** **4774**  
 JOVE  
 11/30/1995 - 03/31/1999 FY00: \$0 Total: \$81,000  
 Prin. Invest.: S I ZEEMAN  
 Tech. Officer: MSFC/D SIX  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 9128** **UNIVERSITY OF SOUTHERN MAINE** **4775**  
 ACCESS EARTH: PROMOTING ACCESSIBILITY TO THE EARTH SYSTEM  
 SCIENCES FOR PERSONS WITH DISABILITIES  
 03/01/2000 - 02/28/2001 FY00: \$60,611 Total: \$60,611  
 Prin. Invest.: S M LOCKE  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

## MARYLAND

**NAG 5 2829** **BOWIE STATE UNIVERSITY** **4776**  
 MODEL-BASED VQ FOR MULTISPECTRAL EARTH IMAGE DATA COMPRES-  
 SION  
 12/14/1994 - 12/31/2000 FY00: \$0 Total: \$164,231  
 Prin. Invest.: M MAREBOYANA  
 Tech. Officer: GSFC/J TILTON  
 CASE Category: 11 - ASTRONOMY

## NASA'S UNIVERSITY PROGRAM

MARYLAND

<b>NAG 5 6476</b> <b>BOWIE STATE UNIVERSITY</b> <b>4777</b> ASSESSING THE IMPACT OF EXPANDING URBAN LAND USE ON AGRICULTURAL PRODUCTIVITY USING REMOTE SENSING 12/08/1997 - 12/14/2000                      FY00: \$0                      Total: \$471,184 <i>Prin. Invest.:</i> W LAWRENCE <i>Tech. Officer:</i> GSFC/M L IMHOFF CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 9843</b> <b>BOWIE STATE UNIVERSITY</b> <b>4785</b> PROJECT ACCESS (ACADEMY FOR THE COLLABORATIVE ENHANCEMENT OF STUDENT SKILLS) 08/07/2000 - 07/14/2001                      FY00: \$100,000                      Total: \$100,000 <i>Prin. Invest.:</i> T MCFADDEN <i>Tech. Officer:</i> GSFC/C PERSON CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 5 7225</b> <b>BOWIE STATE UNIVERSITY</b> <b>4778</b> SIECA IS A PROGRAM FOR COLLEGE INTERNS. 04/09/1998 - 06/14/2000                      FY00: \$0                      Total: \$386,129 <i>Prin. Invest.:</i> J LANGDON <i>Tech. Officer:</i> GSFC/D MENCHAN CASE Category: 22 - COMPUTER SCIENCE	<b>NCC 5 145</b> <b>BOWIE STATE UNIVERSITY</b> <b>4786</b> AUTOMATION OF SCHEDULING OF ORBIT DETERMINATION PROGRAMS 07/30/1996 - 06/30/1999                      FY00: \$0                      Total: \$308,838 <i>Prin. Invest.:</i> P C CHI <i>Tech. Officer:</i> GSFC/D A WEIDOW, GSFC/J R SPARMO CASE Category: 11 - ASTRONOMY
<b>NAG 5 7658</b> <b>BOWIE STATE UNIVERSITY</b> <b>4779</b> A VIRTUAL DATA VISUALIZATION AND ANALYSIS DISTRIBUTION SYSTEM: CINEMATOGRAPHY OF SCIENCE 09/09/1998 - 02/14/2000                      FY00: \$0                      Total: \$25,000 <i>Prin. Invest.:</i> J M CAVALLLO <i>Tech. Officer:</i> GSFC/J D BENNETT CASE Category: 22 - COMPUTER SCIENCE	<b>NCC 5 201</b> <b>BOWIE STATE UNIVERSITY</b> <b>4787</b> BOWIE STATE'S SATELLITE OPERATIONS AND CONTROL CENTER 06/27/1997 - 08/31/1999                      FY00: \$0                      Total: \$400,000 <i>Prin. Invest.:</i> N T WAKIM <i>Tech. Officer:</i> GSFC/L GATTO CASE Category: 49 - ENGINEERING, OTHER
<b>NAG 5 7669</b> <b>BOWIE STATE UNIVERSITY</b> <b>4780</b> SUPPORT FOR DATA ANALYSIS, PRESENTATION, FIELD & MEETING TRAVEL NASA/DOD/LEGACY CENTRAL AMERICA DEPL 09/28/1998 - 09/30/2001                      FY00: \$0                      Total: \$163,957 <i>Prin. Invest.:</i> W LAWRENCE <i>Tech. Officer:</i> GSFC/D L WILLIAMS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NCC 5 232</b> <b>BOWIE STATE UNIVERSITY</b> <b>4788</b> MODEL INSTITUTIONS FOR EXCELLENCE - PERIOD OF PERFORMANCE 09/22/1997 - 09/30/2000                      FY00: \$40,000                      Total: \$4,765,804 <i>Prin. Invest.:</i> N WAKIM <i>Tech. Officer:</i> GSFC/L RANDOLPH CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 5 8370</b> <b>BOWIE STATE UNIVERSITY</b> <b>4781</b> A FAST TRACK PLAN TOWARD TEACHER CERTIFICATION FOR THE PUBLIC SCHOOL SYSTEM OF PRINCE GEORGE'S COUNTY 03/12/1999 - 02/28/2001                      FY00: \$200,000                      Total: \$400,000 <i>Prin. Invest.:</i> D W CRIM <i>Tech. Officer:</i> GSFC/D MENCHAN CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 5 235</b> <b>BOWIE STATE UNIVERSITY</b> <b>4789</b> AN AGENT-BASED INFORMATION PROCESSING SYSTEM CO-OPERATION WITH BOWIE STATE 11/07/1997 - 06/14/2001                      FY00: \$50,000                      Total: \$150,000 <i>Prin. Invest.:</i> S SRIVASTAVA <i>Tech. Officer:</i> GSFC/W TRUSZKOWSKI CASE Category: 22 - COMPUTER SCIENCE
<b>NAG 5 8787</b> <b>BOWIE STATE UNIVERSITY</b> <b>4782</b> TRAINING UNDERGRADUATES IN SPACE SCIENCE AND SATELLITE OPERATION AND TECHNOLOGY 08/31/1999 - 08/31/2001                      FY00: \$100,000                      Total: \$200,000 <i>Prin. Invest.:</i> N WAKIM <i>Tech. Officer:</i> GSFC/P CROUSE CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 5 446</b> <b>BOWIE STATE UNIVERSITY</b> <b>4790</b> ANALYSIS & MODIFICATION OF NASA WEB BASED SOFTWARE 07/10/2000 - 07/14/2001                      FY00: \$70,082                      Total: \$70,082 <i>Prin. Invest.:</i> D CARVALO <i>Tech. Officer:</i> GSFC/H PARK CASE Category: 22 - COMPUTER SCIENCE
<b>NAG 5 9458</b> <b>BOWIE STATE UNIVERSITY</b> <b>4783</b> A 2000 SUMMER INSTITUTE IN ENGINEERING & COMPUTER SCIENCE 04/14/2000 - 04/30/2001                      FY00: \$207,900                      Total: \$207,900 <i>Prin. Invest.:</i> D LANGDON <i>Tech. Officer:</i> GSFC/D MENCHAN CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 5 507</b> <b>BOWIE STATE UNIVERSITY</b> <b>4791</b> FOLIAR OPTICAL PROPERTY MEASUREMENTS OF BOREAL SPECIES (A CONTINUATION OF THE BOREAL RESEARCH PROGRAM) 08/07/2000 - 08/14/2001                      FY00: \$23,625                      Total: \$23,625 <i>Prin. Invest.:</i> W T LAWRENCE <i>Tech. Officer:</i> GSFC/E MIDDLETON CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 9544</b> <b>BOWIE STATE UNIVERSITY</b> <b>4784</b> GODDARD STUDENT INTERNSHIP PROGRAM (GSIP) 05/03/2000 - 05/14/2001                      FY00: \$49,868                      Total: \$49,868 <i>Prin. Invest.:</i> N T WAKIM <i>Tech. Officer:</i> GSFC/M S BURRELL CASE Category: 42 - ASTRONAUTICAL ENGR	<b>NAG 5 7342</b> <b>CAPITOL COLLEGE</b> <b>4792</b> TO RUN THE PRE-ENGINEERING PROGRAM 04/27/1998 - 04/30/2000                      FY00: \$0                      Total: \$125,700 <i>Prin. Invest.:</i> J JARREL <i>Tech. Officer:</i> GSFC/D MENCHAN CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 9375** **CAPITOL COLLEGE** **4793**  
 SUMMER 2000 PRE-ENGINEERING PROGRAM AT CAPITOL COLLEGE  
 03/31/2000 - 04/30/2001 FY00: \$53,900 Total: \$53,900  
 Prin. Invest.: D JARRELL  
 Tech. Officer: GSFC/D MENCHAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 69** **CHARLES COUNTY COMMUNITY COLLEGE** **4794**  
 LAB INVESTIGATIONS OF FORMATION PROPERTIES & METAMORPHISM OF  
 PRE-SOLAR MATERIALS  
 06/01/1994 - 05/31/1999 FY00: \$0 Total: \$90,693  
 Prin. Invest.: G KRAUSE  
 Tech. Officer: GSFC/J NUTH, GSFC/J ALLEN  
 CASE Category: 11 - ASTRONOMY

**NCC 5 400** **CHARLES COUNTY COMMUNITY COLLEGE** **4795**  
 LABORATORY INVESTIGATION OF THE FORMATION, PROPERTIES AND  
 METAMORPHISM OF PRE-SOLAR MATERIALS  
 05/14/1999 - 05/31/2001 FY00: \$22,693 Total: \$42,122  
 Prin. Invest.: G KRAUSE  
 Tech. Officer: GSFC/J A NUTH  
 CASE Category: 12 - CHEMISTRY

**NAG 1 1811** **JOHNS HOPKINS UNIVERSITY** **4796**  
 NONDESTRUCTIVE DETERMINATION OF BOND STRENGTH  
 02/26/1996 - 06/30/2000 FY00: \$1 Total: \$150,001  
 Prin. Invest.: R E GREEN, JR.  
 Tech. Officer: LARC/M J ROBERTS  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 1 2043** **JOHNS HOPKINS UNIVERSITY** **4797**  
 INFERRING ASPECTS OF TRANSPORT AND MIXING IN THE STRATOSPHERE  
 AND TROPOSPHERE FROM CHEMICAL TRACER  
 04/01/1998 - 03/31/2001 FY00: \$79,022 Total: \$208,022  
 Prin. Invest.: D W WAUGH  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2194** **JOHNS HOPKINS UNIVERSITY** **4798**  
 DYNAMICAL COUPLING OF THE TROPOSPHERE WITH THE POLAR STRATOSPHERE  
 05/14/1999 - 04/30/2002 FY00: \$40,000 Total: \$78,718  
 Prin. Invest.: D W WAUGH  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2257** **JOHNS HOPKINS UNIVERSITY** **4799**  
 METHODS FOR REFLECTED GLOBAL POSITIONING SYSTEM (GPS) DATA  
 COLLECTION AND ANALYSIS  
 01/11/2000 - 09/30/2001 FY00: \$228,300 Total: \$228,300  
 Prin. Invest.: M S ASHER, R K RANEY, T ELFOUHALEY  
 Tech. Officer: LARC/S J KATZBERG, GSFC/J L GARRISON  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 1 2270** **JOHNS HOPKINS UNIVERSITY** **4800**  
 PHOTOLYSIS RATE COEFFICIENT CALCULATIONS IN SUPPORT OF SOLVE  
 CAMPAIGN  
 02/17/2000 - 01/31/2001 FY00: \$188,000 Total: \$188,000  
 Prin. Invest.: S A LLOYD  
 Tech. Officer: LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2304** **JOHNS HOPKINS UNIVERSITY** **4801**  
 NONDESTRUCTIVE EVALUATION OF SPACECRAFT & AIRCRAFT WIRING  
 06/06/2000 - 06/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: J M GREEN  
 Tech. Officer: LARC/W P WINFREE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 1 2329** **JOHNS HOPKINS UNIVERSITY** **4802**  
 COMPREHENSIVE ASSESSMENT OF HEALTH AND THE AIR-CRAFT CABIN  
 ENVIRONMENT: PHASE I  
 09/26/2000 - 09/30/2002 FY00: \$458,005 Total: \$458,005  
 Prin. Invest.: P S LEES  
 Tech. Officer: LARC/R R ARTCLIFF  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1392** **JOHNS HOPKINS UNIVERSITY** **4803**  
 NSTARS PROJECT SUPPORT AND RESEARCH ON NEARBY STAR S  
 02/01/2000 - 12/31/2000 FY00: \$116,988 Total: \$116,988  
 Prin. Invest.: T HENRY  
 Tech. Officer: ARC/L CAROFF  
 CASE Category: 11 - ASTRONOMY

**NAG 3 1815** **JOHNS HOPKINS UNIVERSITY** **4804**  
 EXPERIMENTAL INVESTIGATION; POOL BOILING HEAT TRANSFER  
 ENHANCEMENT IN THE PRESENCE OF ELECTRIC FIELD  
 03/25/1996 - 03/24/2000 FY00: \$118,949 Total: \$352,889  
 Prin. Invest.: D HERMAN  
 Tech. Officer: GRC/H K NAHRA, GRC/B MOTIL  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1923** **JOHNS HOPKINS UNIVERSITY** **4805**  
 MARANGONI EFFECT ON DROP DEFORM & BREAK UP IN A EXTENDED FLOW: THE  
 ROLE OF SURFACTANT PHYSIC CHEMISTRY  
 07/18/1996 - 07/17/2000 FY00: \$61,276 Total: \$305,955  
 Prin. Invest.: K J STEBE  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 3 1924** **JOHNS HOPKINS UNIVERSITY** **4806**  
 ACOUSTIC BUBBLE REMOVAL FROM BOILING SURFACES  
 07/18/1996 - 12/31/2000 FY00: \$97,450 Total: \$377,518  
 Prin. Invest.: A PROSPERETTI, H N OGUZ, E H TRINH  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1954** **JOHNS HOPKINS UNIVERSITY** **4807**  
 SURFACTANT BASED CRITICAL PHENOMENA IN MICROGRAVITY  
 08/19/1996 - 08/31/2001 FY00: \$44,000 Total: \$241,500  
 Prin. Invest.: M E PAULATIS  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 3 2118** **JOHNS HOPKINS UNIVERSITY** **4808**  
 PRODUCTION AND REMOVAL OF GAS BUBBLES IN MICROGRAVITY  
 02/26/1998 - 01/07/2002 FY00: \$79,858 Total: \$220,332  
 Prin. Invest.: H N OGUZ  
 Tech. Officer: GRC/H K NAHRA  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2333**      **JOHNS HOPKINS UNIVERSITY**      **4809**  
 ANALYTICAL AND EXPERIMENTAL INVESTIGATIONS OF A HYDROCARBON  
 FUELED AIR-AUGMENTED ROCKET ENGINE CYCLE  
 02/16/2000 - 12/31/2000      FY00: \$55,000      Total: \$55,000  
*Prin. Invest.:* T RICE  
*Tech. Officer:* GRC/T D SMITH  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2362**      **JOHNS HOPKINS UNIVERSITY**      **4810**  
 ACOUSTIC BUBBLE REMOVAL FROM BOILING SURFACES AND ITS OPTI-  
 MIZATION  
 04/03/2000 - 11/30/2003      FY00: \$45,265      Total: \$45,265  
*Prin. Invest.:* A PROSPERETTI, NONE  
*Tech. Officer:* GRC/M M HASAN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2460**      **JOHNS HOPKINS UNIVERSITY**      **4811**  
 DESIGN OF EXHAUST NOZZLES FOR THE RBCC-GTX CONCEPT DESIGN  
 OF EXHAUST NOZZLES FOR THE RBCC-GTX CONCEPT  
 06/09/2000 - 01/31/2001      FY00: \$45,000      Total: \$45,000  
*Prin. Invest.:* T RICE  
*Tech. Officer:* GRC/T D SMITH  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 1617**      **JOHNS HOPKINS UNIVERSITY**      **4812**  
 SEARCH FOR CLOSE COMPANIONS OF NEARBY STARS AND TO SIMULATE  
 ST IMAGES IN THE LABORATORY  
 05/24/1991 - 12/31/1999      FY00: \$0      Total: \$853,276  
*Prin. Invest.:* H FORD  
*Tech. Officer:* GSFC/J JELETIC  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2039**      **JOHNS HOPKINS UNIVERSITY**      **4813**  
 RADIATIVE AND CONVECTIVE PROCESSES  
 07/17/1992 - 05/31/1999      FY00: -\$1,488      Total: \$836,686  
*Prin. Invest.:* A ARKING  
*Tech. Officer:* GSFC/K M LAU  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 2232**      **JOHNS HOPKINS UNIVERSITY**      **4814**  
 RECEIVER DESIGN, PERFORMANCE ANALYSIS, AND EVALUATION FOR  
 SPACE-BORNE LASER ALTIMETERS AND . . . .  
 04/08/1993 - 09/30/1999      FY00: \$0      Total: \$829,807  
*Prin. Invest.:* M DAVIDSON, X SUN  
*Tech. Officer:* GSFC/P MILLAR  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 3255**      **JOHNS HOPKINS UNIVERSITY**      **4815**  
 THE STRUCTURE OF ACTIVE GALACTIC NUCLEI  
 06/06/1996 - 12/31/2000      FY00: \$84,000      Total: \$317,700  
*Prin. Invest.:* G A KRISS  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3316**      **JOHNS HOPKINS UNIVERSITY**      **4816**  
 JHU PARTICIPATION IN GO AND GTO PROGRAMS OF THE INFRARED  
 SPACE OBSERVATORY  
 07/31/1996 - 08/14/1999      FY00: \$0      Total: \$93,400  
*Prin. Invest.:* D A NEUFELD  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3448**      **JOHNS HOPKINS UNIVERSITY**      **4817**  
 FAR ULTRAVIOLET SPECTROSCOPIC EXPLORER (FUSE) OUTREACH  
 INITIATIVE.  
 10/04/1996 - 10/14/2000      FY00: \$0      Total: \$85,000  
*Prin. Invest.:* D MOOS, D HOLMES  
*Tech. Officer:* GSFC/D R MENGERS, GSFC/O FINGUEROA  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3485**      **JOHNS HOPKINS UNIVERSITY**      **4818**  
 DIFFUSE IONIZED GAS IN GALACTIC ENVIRONMENTS  
 10/31/1996 - 10/31/2000      FY00: \$121,300      Total: \$436,200  
*Prin. Invest.:* K R SEMBACH  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3503**      **JOHNS HOPKINS UNIVERSITY**      **4819**  
 THE EVOLUTION AND CLUSTERING OF GALAXIES AT  $Z=1$  AND  
 11/27/1996 - 11/30/1999      FY00: \$0      Total: \$394,711  
*Prin. Invest.:* A S SZALAY  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3542**      **JOHNS HOPKINS UNIVERSITY**      **4820**  
 A MULTI-WAVELENGTH STUDY OF MOLECULES IN THE INTERSTELLAR  
 MEDIUM  
 11/27/1996 - 03/31/2000      FY00: \$0      Total: \$115,800  
*Prin. Invest.:* D A NEUFELD  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3879**      **JOHNS HOPKINS UNIVERSITY**      **4821**  
 MULTI-POINT, MAGNETOSPHERIC RECONNAISSANCE IMAGING DYNAMICS,  
 EVOLUTION, ORIGINS, AND STRUCTURE  
 02/26/1997 - 02/29/2000      FY00: \$0      Total: \$92,314  
*Prin. Invest.:* D G MITCHELL  
*Tech. Officer:* GSFC/R HOWARD  
*CASE Category:* 13 - PHYSICS

**NAG 5 4010**      **JOHNS HOPKINS UNIVERSITY**      **4822**  
 MODELING THE ENTRY OF SOLAR WIND PARTICLES INTO THE  
 03/06/1997 - 04/30/2000      FY00: \$0      Total: \$120,600  
*Prin. Invest.:* D WING  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4168**      **JOHNS HOPKINS UNIVERSITY**      **4823**  
 PLANETARY AERONOMY  
 03/15/1997 - 02/28/2001      FY00: \$81,766      Total: \$337,943  
*Prin. Invest.:* D F STROBEL  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4261**      **JOHNS HOPKINS UNIVERSITY**      **4824**  
 WINDOWLESS FUV LAMPS  
 04/14/1997 - 12/31/2000      FY00: \$45,216      Total: \$154,316  
*Prin. Invest.:* D R MCCANDLISS  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4365**                      **JOHNS HOPKINS UNIVERSITY**                      **4825**  
 CONTINUATION OF THE VOYAGER INTERSTELLAR MISSION:  
 04/23/1997 - 03/31/2001      FY00: \$475,000                      Total: \$1,900,000  
*Prin. Invest.:* D M KRIMIGIS  
*Tech. Officer:* GSFC/C P HOLMES  
*CASE Category:* 13 - PHYSICS

**NAG 5 4955**                      **JOHNS HOPKINS UNIVERSITY**                      **4833**  
 AN OPTICAL INVESTIGATION OF THE GENESIS OF SOLAR A  
 06/23/1997 - 05/31/2000      FY00: \$0                      Total: \$758,000  
*Prin. Invest.:* D M RUST  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 13 - PHYSICS

**NAG 5 4548**                      **JOHNS HOPKINS UNIVERSITY**                      **4826**  
 REFLECTRON TIME-OF-FLIGHT MASS SPECTROMETER INSTRU  
 05/05/1997 - 10/31/1999      FY00: \$0                      Total: \$311,700  
*Prin. Invest.:* D W MCENTIRE  
*Tech. Officer:* GSFC/B CAMPBELL  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4969**                      **JOHNS HOPKINS UNIVERSITY**                      **4834**  
 COORDINATED ISTP SATELLITE - GROUND STUDY OF MAGNE PROCESSES  
 06/23/1997 - 06/14/2000      FY00: \$0                      Total: \$158,300  
*Prin. Invest.:* D OHTANI  
*Tech. Officer:* GSFC/J BOHLIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 4549**                      **JOHNS HOPKINS UNIVERSITY**                      **4827**  
 ANALYSIS OF EMIC WAVE GENERATION AND PROPAGATION U  
 05/06/1997 - 04/30/2000      FY00: \$0                      Total: \$210,000  
*Prin. Invest.:* D E ERLANDSON  
*Tech. Officer:* GSFC/J BOHLIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 5047**                      **JOHNS HOPKINS UNIVERSITY**                      **4835**  
 WIND-WAVE-CURRENT COUPLED MODEL  
 08/22/1995 - 09/30/2001      FY00: \$15,250                      Total: \$346,239  
*Prin. Invest.:* O PHILLIPS  
*Tech. Officer:* GSFC/S R LONG, GSFC/N E HUANG  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 5 4626**                      **JOHNS HOPKINS UNIVERSITY**                      **4828**  
 UNMASKING OBSCURED SEYFERT 1 NUCLEI WITH RXTE  
 05/21/1997 - 05/31/1999      FY00: -\$2                      Total: \$22,294  
*Prin. Invest.:* K A WEAVER  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 5082**                      **JOHNS HOPKINS UNIVERSITY**                      **4836**  
 MEASUREMENTS OF TEMPERATURE FOR THE STUDIES OF DAYGLOW  
 EMISSIONS  
 06/14/1996 - 05/31/1999      FY00: \$0                      Total: \$59,500  
*Prin. Invest.:* J YEE  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 4664**                      **JOHNS HOPKINS UNIVERSITY**                      **4829**  
 ION CYCLOTRON WAVES: AN ISTP STUDY  
 06/25/1997 - 05/31/2001      FY00: \$30,000                      Total: \$131,931  
*Prin. Invest.:* D J ANDERSON  
*Tech. Officer:* GSFC/J G GREBOWSKY  
*CASE Category:* 13 - PHYSICS

**NAG 5 5122**                      **JOHNS HOPKINS UNIVERSITY**                      **4837**  
 ROCKET AND LABORATORY EXPERIMENTS IN ASTRONOMY  
 02/21/1997 - 02/28/2001      FY00: \$471,000                      Total: \$2,031,000  
*Prin. Invest.:* P D FELDMAN  
*Tech. Officer:* GSFC/B J FLOWERS  
*CASE Category:* 13 - PHYSICS

**NAG 5 4679**                      **JOHNS HOPKINS UNIVERSITY**                      **4830**  
 CONCERNING THE SOLAR WIND INPUT INTO THE MAGNETOSP  
 06/05/1997 - 05/31/2000      FY00: \$0                      Total: \$163,500  
*Prin. Invest.:* D G SIBECK  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 13 - PHYSICS

**NAG 5 5138**                      **JOHNS HOPKINS UNIVERSITY**                      **4838**  
 ALTIMETER SEA-STATE BIAS MODEL STUDY FUNDING FOR THE FIRST  
 YEAR OF THE GRANT  
 04/10/1997 - 05/31/2000      FY00: \$0                      Total: \$254,588  
*Prin. Invest.:* D R THOMPSON  
*Tech. Officer:* GSFC/D C VANDEMARK, GSFC/E J WALSH  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 4736**                      **JOHNS HOPKINS UNIVERSITY**                      **4831**  
 SCIENTIFIC AND TECHNICAL DEVELOPMENT OF THE NEXT G TELESCOPE  
 06/11/1997 - 09/30/2000      FY00: -\$103,057                      Total: \$328,914  
*Prin. Invest.:* R BURG  
*Tech. Officer:* GSFC/E P SMITH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 5198**                      **JOHNS HOPKINS UNIVERSITY**                      **4839**  
 DENSITY TEMPERATURE & MEASUREMENTS FOR ICON ROCKET EXPERI-  
 MENT  
 05/21/1998 - 04/11/2001      FY00: \$27,000                      Total: \$68,805  
*Prin. Invest.:* J H YEE  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 4780**                      **JOHNS HOPKINS UNIVERSITY**                      **4832**  
 RADIATIVE AND PHOTOCHEMICAL MODELING DURING POLARI  
 06/09/1997 - 12/31/1999      FY00: \$0                      Total: \$344,958  
*Prin. Invest.:* S A LLOYD  
*Tech. Officer:* GSFC/M J KURYLO  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 5301**                      **JOHNS HOPKINS UNIVERSITY**                      **4840**  
 GRANT ENTITLED: ALTIMETER SEA-STATE BIAS MODEL STUDY  
 07/18/2000 - 07/17/2003      FY00: \$49,732                      Total: \$49,732  
*Prin. Invest.:* D R THOMPSON  
*Tech. Officer:* WFF/D C VANDEMARK, WFF/D W HANCOCK  
*CASE Category:* 45 - ELECTRICAL ENGR

## NASA'S UNIVERSITY PROGRAM

MARYLAND

**NAG 5 6000**                      **JOHNS HOPKINS UNIVERSITY**                      **4841**  
 GLOBAL ATOMIC OXYGEN DISTRIBUTION IN THE MESOSPHERE  
 (80-105KM)  
 08/26/1997 - 07/31/1999                      FY00: \$0                      Total: \$72,700  
*Prin. Invest.:* D YEE  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6050**                      **JOHNS HOPKINS UNIVERSITY**                      **4842**  
 LOW LATITUDE CURRENT SYSTEMS DETERMINED FROM SATEL OBSERVA-  
 TIONS  
 07/28/1997 - 09/30/1999                      FY00: \$0                      Total: \$123,800  
*Prin. Invest.:* B J ANDERSON  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 6113**                      **JOHNS HOPKINS UNIVERSITY**                      **4843**  
 PROJECT ULYSSES HI-SCALE DATA ANALYSIS PHASE ACTIV  
 07/28/1997 - 12/31/2000                      FY00: \$402,000                      Total: \$1,214,000  
*Prin. Invest.:* R E GOLD  
*Tech. Officer:* GSFC/V JONESS  
*CASE Category:* 13 - PHYSICS

**NAG 5 6178**                      **JOHNS HOPKINS UNIVERSITY**                      **4844**  
 CRITICAL COMPARISON OF SUBSTORM TRIGGER MODELS AGA HE NEAR-  
 EARTH TAIL  
 07/28/1997 - 05/14/2001                      FY00: \$39,701                      Total: \$219,200  
*Prin. Invest.:* D OHTANI  
*Tech. Officer:* GSFC/J BOHLIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 6182**                      **JOHNS HOPKINS UNIVERSITY**                      **4845**  
 MAGNETIC FIELD-ALIGNED ELECTRODYNAMICS OF THE MIDD  
 07/30/1997 - 12/31/2000                      FY00: \$40,000                      Total: \$120,000  
*Prin. Invest.:* D H MAUK  
*Tech. Officer:* GSFC/J BOHLIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 6400**                      **JOHNS HOPKINS UNIVERSITY**                      **4846**  
 SPACE OBSERVATIONS OF STARBURST GALAXIES (LTSA)  
 10/10/1997 - 09/30/2001                      FY00: \$280,300                      Total: \$534,500  
*Prin. Invest.:* T HECKMAN  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6488**                      **JOHNS HOPKINS UNIVERSITY**                      **4847**  
 MINIATURIZED MODULAR IMAGING SYSTEM  
 10/24/1997 - 10/14/1999                      FY00: \$0                      Total: \$227,900  
*Prin. Invest.:* D GOLD  
*Tech. Officer:* GSFC/B CAMPBELL  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6568**                      **JOHNS HOPKINS UNIVERSITY**                      **4848**  
 THE MAGNETOTAIL CROSS-TAIL CURRENT SHEET: ITS STAT ILITY AND ITS  
 ROLE IN BURSTY-BULK FLOWS AND SUBST  
 11/12/1997 - 09/30/1999                      FY00: \$0                      Total: \$69,300  
*Prin. Invest.:* D G MITCHELL  
*Tech. Officer:* GSFC/J BOHLIN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6732**                      **JOHNS HOPKINS UNIVERSITY**                      **4849**  
 MAGNETIC CATAclysmic VARIABLES  
 12/16/1997 - 12/31/1999                      FY00: \$0                      Total: \$45,000  
*Prin. Invest.:* W BLAIR  
*Tech. Officer:* GSFC/R POLIDAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6784**                      **JOHNS HOPKINS UNIVERSITY**                      **4850**  
 MONITORING OF NGC 4151  
 12/30/1997 - 12/31/2000                      FY00: \$0                      Total: \$45,000  
*Prin. Invest.:* G KRISS  
*Tech. Officer:* GSFC/R POLIDAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6917**                      **JOHNS HOPKINS UNIVERSITY**                      **4851**  
 PRESIDENTIAL EARLY CAREER AWARD GRANT PROPOSAL  
 03/11/1998 - 08/14/2000                      FY00: \$100,000                      Total: \$200,000  
*Prin. Invest.:* K A WEAVER  
*Tech. Officer:* GSFC/L KALUZIENSKI  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7080**                      **JOHNS HOPKINS UNIVERSITY**                      **4852**  
 PYROTECHNIC ROCK CHIPPER  
 03/10/1998 - 07/31/2000                      FY00: \$0                      Total: \$165,974  
*Prin. Invest.:* A F CHENG  
*Tech. Officer:* GSFC/B CAMPBELL  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7186**                      **JOHNS HOPKINS UNIVERSITY**                      **4853**  
 INFRARED INVESTIGATION OF COMETARY VOLATILES  
 03/25/1998 - 02/28/2001                      FY00: \$64,056                      Total: \$200,056  
*Prin. Invest.:* H WEAVER  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7189**                      **JOHNS HOPKINS UNIVERSITY**                      **4854**  
 DMSP SSJ4 DATA RESTORATION, CLASSIFICATION, AND ON -LINE DATA  
 ACCESS  
 04/09/1998 - 03/31/2000                      FY00: \$0                      Total: \$57,910  
*Prin. Invest.:* S WING  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7227**                      **JOHNS HOPKINS UNIVERSITY**                      **4855**  
 TOMS VALIDATION AND UTLS PHOTOCHEMISTRY USING ER-2 AND  
 GROUND BASED DATASETS  
 04/14/1998 - 04/14/2001                      FY00: \$48,000                      Total: \$157,151  
*Prin. Invest.:* S A LLOYD  
*Tech. Officer:* GSFC/E HILSENATH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7235**                      **JOHNS HOPKINS UNIVERSITY**                      **4856**  
 A SEARCH FOR TOROIDAL MAGNETIC FIELDS IN THE SOLAR PHOTO-  
 SPHERE  
 04/08/1998 - 09/30/1999                      FY00: \$0                      Total: \$52,851  
*Prin. Invest.:* D M RUST  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7361**      **JOHNS HOPKINS UNIVERSITY**      **4857**  
 MIDDLEWORLD TRANSPORT WITHIN THREE-DIMENSIONAL MOD ELS:  
 CHARACTERIZATION AND SENSITIVITIES TO MODEL  
 05/06/1998 - 09/30/2001      FY00: \$51,957      Total: \$140,918  
*Prin. Invest.:* D W WAUGH *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/R W STEWART  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7552**      **JOHNS HOPKINS UNIVERSITY**      **4858**  
 TROPOSPHERIC AND STRATOSPHERIC COMPOSITION RETRIEVALS USING  
 THE STELLAR OCCULTATION TECHNIQUE  
 06/22/1998 - 08/31/2000      FY00: \$0      Total: \$482,813  
*Prin. Invest.:* J YEE  
*Tech. Officer:* GSFC/J A KAYE  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 7621**      **JOHNS HOPKINS UNIVERSITY**      **4859**  
 AN INVESTIGATION OF RADIATIVE DYNAMICAL COUPLING IN THE JOVIA-  
 NATMOSPHERE  
 07/30/1998 - 07/14/1999      FY00: \$0      Total: \$105,000  
*Prin. Invest.:* D F APPLEBY  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7697**      **JOHNS HOPKINS UNIVERSITY**      **4860**  
 PROPOSAL TITLED "A PROPOSAL TO INVESTIGATE OUTSTANDING PROBLEMS  
 IN ASTRONOMY BY THE INSTRUMENT DEFINITION"  
 09/17/1998 - 11/30/2000      FY00: \$484,602      Total: \$3,076,433  
*Prin. Invest.:* H FORD  
*Tech. Officer:* GSFC/J JELETIC  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7720**      **JOHNS HOPKINS UNIVERSITY**      **4861**  
 TWO WIDE-ANGLE IMAGING NEUTRAL-ATOM SPECTROMETERS (TWINS)  
 11/10/1998 - 11/14/1999      FY00: \$0      Total: \$37,000  
*Prin. Invest.:* E C ROELOF  
*Tech. Officer:* GSFC/D MENGERS  
*CASE Category:* 99 - MULTI INTERDISCIPLINARY, OTHER

**NAG 5 7724**      **JOHNS HOPKINS UNIVERSITY**      **4862**  
 QUANTITATIVE MAGNETOSPHERIC DYNAMICS FROM POLAR UV AND  
 VISIBLE IMAGERS  
 09/24/1998 - 09/30/2000      FY00: \$71,200      Total: \$591,200  
*Prin. Invest.:* C I MENG  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7769**      **JOHNS HOPKINS UNIVERSITY**      **4863**  
 GRAVITY WAVES IN JUPITER'S UPPER ATMOSPHERE  
 01/15/1999 - 01/14/2001      FY00: \$85,000      Total: \$125,000  
*Prin. Invest.:* D STROBEL  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7773**      **JOHNS HOPKINS UNIVERSITY**      **4864**  
 TOWARD THE DEVELOPMENT OF GROUP III NITRIDE PHOTODETECTORS  
 AND IMAGING ARRAYS  
 11/13/1998 - 10/31/1999      FY00: \$0      Total: \$24,605  
*Prin. Invest.:* D WICKENDEN  
*Tech. Officer:* GSFC/B MOTT  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7797**      **JOHNS HOPKINS UNIVERSITY**      **4865**  
 TURBULENCE IN MAGNETOTAIL PLASMA SHEET  
 12/15/1998 - 09/30/2000      FY00: \$0      Total: \$178,183  
*Prin. Invest.:* D Y LUI  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7863**      **JOHNS HOPKINS UNIVERSITY**      **4866**  
 SATELLITE BOMBARDMENT MODEL WITH DATA CONSTRAINTS  
 01/11/1999 - 12/31/2001      FY00: \$88,589      Total: \$174,228  
*Prin. Invest.:* C P PARANICAS  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7920**      **JOHNS HOPKINS UNIVERSITY**      **4867**  
 ISTP: SOLAR WIND, FORESHOCK, AND MAGNETOSHEATH PROCESSES  
 12/15/1998 - 02/28/2001      FY00: \$104,000      Total: \$204,000  
*Prin. Invest.:* D G SIBECK  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7921**      **JOHNS HOPKINS UNIVERSITY**      **4868**  
 SOLAR FILAMENTS AT 1 AU  
 12/10/1998 - 12/31/2000      FY00: \$92,766      Total: \$182,394  
*Prin. Invest.:* D M RUST  
*Tech. Officer:* GSFC/D CLUNG  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7999**      **JOHNS HOPKINS UNIVERSITY**      **4869**  
 DISCOVERY MISSION SELECTION - ALADDIN AO98-OSS-04ALADDIN  
 FEASIBILITY STUDY  
 01/05/1999 - 06/30/1999      FY00: \$0      Total: \$340,000  
*Prin. Invest.:* J T MUELLER  
*Tech. Officer:* GSFC/M NOLAN  
*CASE Category:* 99 - MULTI INTERDISCIPLINARY, OTHER

**NAG 5 8001**      **JOHNS HOPKINS UNIVERSITY**      **4870**  
 DISCOVERY MISSION SELECTION - MESSENGER AO98-OSS-04FEASIBILITY  
 STUDY  
 01/05/1999 - 06/30/1999      FY00: \$0      Total: \$370,000  
*Prin. Invest.:* M R PETERSON  
*Tech. Officer:* GSFC/M NOLAN  
*CASE Category:* 99 - MULTI INTERDISCIPLINARY, OTHER

**NAG 5 8007**      **JOHNS HOPKINS UNIVERSITY**      **4871**  
 OPTIMIZED ANALYSIS OF RADAR ICE SOUNDER DATA  
 01/08/1999 - 12/31/2000      FY00: \$0      Total: \$100,000  
*Prin. Invest.:* B L GOTWOLS  
*Tech. Officer:* GSFC/S GOGINENI  
*CASE Category:* 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 8019**      **JOHNS HOPKINS UNIVERSITY**      **4872**  
 CORONAL MASS EJECTION EVENTS: COMPARATIVE GEOEFFECTIVENESS  
 FROM SOLAR MINIMUM THROUGH SOLAR MAXIMUM  
 01/06/1999 - 12/31/2001      FY00: \$73,232      Total: \$152,150  
*Prin. Invest.:* N J FOX  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS



## NASA'S UNIVERSITY PROGRAM

<b>NAG 5 8030</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4873</b> INTEGRATING INTERBALL INTO THE ISTEP 01/13/1999 - 01/14/2000      FY00: \$0      Total: \$60,200 <i>Prin. Invest.:</i> D G SIBECK <i>Tech. Officer:</i> GSFC/M H ACUNA <i>CASE Category:</i> 13 - PHYSICS	<b>NAG 5 8191</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4881</b> ENERGETIC ION INTERACTIONS WITH THE GALILEAN SATELLITES 04/21/1999 - 03/31/2001      FY00: \$15,930      Total: \$31,391 <i>Prin. Invest.:</i> D MAUK <i>Tech. Officer:</i> GSFC/R BEEBE <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 8036</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4874</b> AURORAL GLOBAL AND MULTI-SCALE INVESTIGATIONS USING POLAR IMAGES 01/11/1999 - 01/14/2000      FY00: \$0      Total: \$51,000 <i>Prin. Invest.:</i> P T NEWELL <i>Tech. Officer:</i> GSFC/M H ACUNA <i>CASE Category:</i> 13 - PHYSICS	<b>NAG 5 8279</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4882</b> RECONCILING STARBURSTS AND NORMAL STAR FORMATION (ADP98) 02/25/1999 - 05/14/2001      FY00: \$0      Total: \$48,051 <i>Prin. Invest.:</i> G R MEURER <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 8037</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4875</b> HIGH-LATITUDE ELECTRIC FIELD MODELS REFERENCED TO IMF ORIENTATION AND AURORAL CONFIGURATION 01/11/1999 - 06/30/2000      FY00: \$0      Total: \$59,992 <i>Prin. Invest.:</i> R A GREENWALD <i>Tech. Officer:</i> GSFC/M H ACUNA <i>CASE Category:</i> 13 - PHYSICS	<b>NAG 5 8331</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4883</b> FLARE GENESIS EXPERIMENT 05/05/1999 - 05/31/2001      FY00: \$122,000      Total: \$399,436 <i>Prin. Invest.:</i> D M RUST <i>Tech. Officer:</i> GSFC/WWAGNER <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 8061</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4876</b> GPS-BASED FALLING SPHERE DEVELOPMENT 01/12/1999 - 06/30/2000      FY00: \$0      Total: \$83,461 <i>Prin. Invest.:</i> F MORGAN <i>Tech. Officer:</i> GSFC/M MELLOTT <i>CASE Category:</i> 13 - PHYSICS	<b>NAG 5 8334</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4884</b> STRUCTURAL AND CHEMICAL ALTERATIONS OF OUTER SYSTEM ICES DUE TO RADIOLYSIS AND PHOTOLYSIS 02/24/1999 - 04/30/2000      FY00: \$0      Total: \$6,617 <i>Prin. Invest.:</i> D L DOMINQUE <i>Tech. Officer:</i> GSFC/BEEBE <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 8062</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4877</b> ANALYSIS OF 3-D IMAGERY OF POLAR MESOSPHERIC CLOUDS OBSERVED FROM MSX 01/12/1999 - 01/14/2001      FY00: \$89,500      Total: \$185,500 <i>Prin. Invest.:</i> D MORRISON <i>Tech. Officer:</i> GSFC/M MELLOTT <i>CASE Category:</i> 13 - PHYSICS	<b>NAG 5 8347</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4885</b> OPTIMAL COADDITION OF DITHERED IMAGES USING THE KARHUNEN-LOEVE TRANSFORM 02/25/1999 - 02/28/2001      FY00: \$88,500      Total: \$174,900 <i>Prin. Invest.:</i> A S SZALAY <i>Tech. Officer:</i> GSFC/J BREDEKAMP <i>CASE Category:</i> 42 - ASTRONAUTICAL ENGR
<b>NAG 5 8122</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4878</b> ANALYSIS OF OPTICAL OBSERVATIONS OF TOPSIDE MOLECULAR IONS IN THE POLAR REGIONS 02/03/1999 - 12/31/2000      FY00: \$88,600      Total: \$181,600 <i>Prin. Invest.:</i> J J YEE <i>Tech. Officer:</i> GSFC/M M MELLOTT <i>CASE Category:</i> 13 - PHYSICS	<b>NAG 5 8361</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4886</b> ISTEP MISSION DATA INTERFACES FOR DARN 03/12/1999 - 04/14/2001      FY00: \$140,000      Total: \$340,000 <i>Prin. Invest.:</i> R GREENWALD <i>Tech. Officer:</i> GSFC/S CURTIS <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 8149</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4879</b> DEV. OF MISSION INDEPENDENCE DATA FORMAT FOR PARTICLE FIELD MEASUREMENT WITH APPLICATION TO AMPTE/C 02/05/1999 - 12/31/2000      FY00: \$123,400      Total: \$242,889 <i>Prin. Invest.:</i> S R NYLUND <i>Tech. Officer:</i> GSFC/J BREDEKAMP <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8395</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4887</b> TO PREPARE A PHASE A CONCEPT STUDY FOR THE AURORAL MULTI-SCALE MIXED (AMM). AMM WAS SELECTED FOR A 03/09/1999 - 10/31/1999      FY00: \$0      Total: \$350,000 <i>Prin. Invest.:</i> B MAUK <i>Tech. Officer:</i> GSFC/D MARGOLIES <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 8171</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4880</b> SPATIAL VARIATIONS IN ROCK SPECTRAL PROPERTIES AT THE SAGAN MEMORIAL STATION 02/22/1999 - 02/28/2001      FY00: \$38,000      Total: \$74,000 <i>Prin. Invest.:</i> S L MURCHIE <i>Tech. Officer:</i> GSFC/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8403</b> <b>JOHNS HOPKINS UNIVERSITY</b> <b>4888</b> ADAPTIVE INSTRUMENT MODULE (AIM) AD-17379 03/26/1999 - 09/14/1999      FY00: \$0      Total: \$65,000 <i>Prin. Invest.:</i> R CONDE <i>Tech. Officer:</i> GSFC/P LUERS <i>CASE Category:</i> 45 - ELECTRICAL ENGR

**NAG 5 8516**                      **JOHNS HOPKINS UNIVERSITY**                      **4889**  
 MINIATURIZED ENERGETIC PARTICLE DETECTOR DEVELOP MENT  
 06/14/1999 - 05/31/2001                      FY00: \$146,997                      Total: \$295,446  
*Prin. Invest.:* R L MCNUTT  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8548**                      **JOHNS HOPKINS UNIVERSITY**                      **4890**  
 IMPLEMENTATION OF ALGORITHMS FOR HIGH SPEED AUTONOUS CCD  
 DATA REDUCTION  
 05/18/1999 - 05/14/2001                      FY00: \$0                      Total: \$21,250  
*Prin. Invest.:* G MURPHY  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NAG 5 8572**                      **JOHNS HOPKINS UNIVERSITY**                      **4891**  
 CLOUD & WATER VAPOR EFFECTS ON CLIMATE SENSITIVITY  
 06/02/1999 - 11/30/2000                      FY00: \$180,000                      Total: \$320,000  
*Prin. Invest.:* A ARKING  
*Tech. Officer:* GSFC/W LAU  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8590**                      **JOHNS HOPKINS UNIVERSITY**                      **4892**  
 STANDARDIZED SKY PARTITIONING FOR THE NEXT GENERATION  
 ASTRONOMY AND SPACE ARCHIVES  
 06/03/1999 - 05/31/2001                      FY00: \$96,664                      Total: \$190,828  
*Prin. Invest.:* A SZALAY  
*Tech. Officer:* GSFC/J H BREDEKAMP  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8655**                      **JOHNS HOPKINS UNIVERSITY**                      **4893**  
 "CROSSLINK TRANSCEIVER DEVELOPMENT IN SUPPORT OF THE NASA/  
 DOD UNIVERSITY NANO-SATELLITE PROGRAM."  
 08/19/1999 - 12/31/2000                      FY00: \$300,119                      Total: \$370,119  
*Prin. Invest.:* P A STADTER  
*Tech. Officer:* GSFC/J BRISTOW  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 8665**                      **JOHNS HOPKINS UNIVERSITY**                      **4894**  
 CROSSLINK NAVIGATION AND COMMUNICATION SYSTEM FOR MULTIPLE  
 DISTRIBUTED SPACECRAFT.  
 08/17/1999 - 08/31/2000                      FY00: \$0                      Total: \$245,611  
*Prin. Invest.:* P A STADTER  
*Tech. Officer:* GSFC/G H MUCKLOW  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 5 8687**                      **JOHNS HOPKINS UNIVERSITY**                      **4895**  
 ADVANCED TECHNIQUES FOR ENERGETIC ION AND NEUTRAL ATOM TOF/  
 IMAGING SENSORS  
 07/20/1999 - 07/31/2001                      FY00: \$49,660                      Total: \$139,443  
*Prin. Invest.:* D G MITCHELL  
*Tech. Officer:* GSFC/G H MUCKLOW  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8688**                      **JOHNS HOPKINS UNIVERSITY**                      **4896**  
 DATA COMPRESSION FOR TIME SERIES AND SPECTRAL DATA  
 07/20/1999 - 07/31/2001                      FY00: \$102,345                      Total: \$204,374  
*Prin. Invest.:* S HAWKINS, 111  
*Tech. Officer:* GSFC/G H MUCKLOW  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 8741**                      **JOHNS HOPKINS UNIVERSITY**                      **4897**  
 ADVANCED AUTOMATION CONCEPTS IN SPACEFLIGHT DYNAMICS & SPACE  
 NAVIGATION.  
 08/17/1999 - 02/28/2001                      FY00: \$0                      Total: \$147,275  
*Prin. Invest.:* P STADTER  
*Tech. Officer:* GSFC/J BRISTOW  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 8800**                      **JOHNS HOPKINS UNIVERSITY**                      **4898**  
 GEOTAIL ENERGETIC PARTICLES AND ION COMPOSITION (EPIC)  
 PROGRAM.  
 11/29/1999 - 11/30/2000                      FY00: \$494,988                      Total: \$494,988  
*Prin. Invest.:* D WILLIAMS  
*Tech. Officer:* GSFC/D FAIRFIELD  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8841**                      **JOHNS HOPKINS UNIVERSITY**                      **4899**  
 ULTRA-BROAD BANDWIDTH ELECTRO-OPTIC MODULATOR WITH  
 CASCADED BRAGG GRATINGS.  
 09/22/1999 - 09/30/2000                      FY00: \$0                      Total: \$19,563  
*Prin. Invest.:* D B KHURGIN  
*Tech. Officer:* GSFC/H C SHAW  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 8852**                      **JOHNS HOPKINS UNIVERSITY**                      **4900**  
 ADAPTIVE INSTRUMENT MODULE (AIM) GRANT NAG5-8403 BEGIN:9/1/99 -  
 END: 8/30/00  
 09/30/1999 - 07/31/2000                      FY00: \$51,308                      Total: \$116,308  
*Prin. Invest.:* R CONDE  
*Tech. Officer:* GSFC/P J LUERS  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 8862**                      **JOHNS HOPKINS UNIVERSITY**                      **4901**  
 HIGH RESOLUTION IMAGING FROM THE STRATOSPHERE: ATMOSPHERIC  
 SEEING AND TETHER DYNAMICS  
 10/22/1999 - 10/14/2000                      FY00: \$10,000                      Total: \$10,000  
*Prin. Invest.:* H FORD  
*Tech. Officer:* GSFC/T GRUNER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 8885**                      **JOHNS HOPKINS UNIVERSITY**                      **4902**  
 CRYOSAT SCIENCE ADVISORY GROUP  
 11/23/1999 - 09/30/2000                      FY00: \$11,500                      Total: \$11,500  
*Prin. Invest.:* K RANEY  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8955**                      **JOHNS HOPKINS UNIVERSITY**                      **4903**  
 ABUNDANCES IN OXYGEN-RICH SUPERNOVA REMNANTS: OBSERVATION-  
 AL TESTS OF U NUCLEOSYNTHESIS MODELS - FU  
 01/24/2000 - 01/31/2001                      FY00: \$38,500                      Total: \$38,500  
*Prin. Invest.:* J A MORSE  
*Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8964**      **JOHNS HOPKINS UNIVERSITY**      **4904**  
 INVESTIGATION OF MAGNETOSPHERIC WAVEGUIDE MODE USING  
 SATELLITE & RADAR OBSERVATIONS  
 02/23/2000 - 02/28/2001      FY00: \$63,400      Total: \$63,400  
*Prin. Invest.:* K TAKAHASHI  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8965**      **JOHNS HOPKINS UNIVERSITY**      **4905**  
 THE HOTTEST STARS IN M31 AND M33 - FUSE  
 01/24/2000 - 01/31/2001      FY00: \$28,000      Total: \$28,000  
*Prin. Invest.:* L BIANCHI  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8994**      **JOHNS HOPKINS UNIVERSITY**      **4906**  
 EMISSION AND ABSORPTION LINE STUDIES OF SYMBIOTIC BINARIES:  
 MASS LOSS AND SHOCK DIAGNOSTICS - FUSE  
 01/24/2000 - 01/31/2001      FY00: \$40,800      Total: \$40,800  
*Prin. Invest.:* S R MCCANDLISS  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9012**      **JOHNS HOPKINS UNIVERSITY**      **4907**  
 THE FAR UV-SPECTRA OF STARBURSTS - FUSE  
 02/08/2000 - 01/31/2001      FY00: \$120,700      Total: \$120,700  
*Prin. Invest.:* T M HECKMAN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9078**      **JOHNS HOPKINS UNIVERSITY**      **4908**  
 INVESTIGATION OF THE MAGNETIC FIELD LINE STRETCHING AT  
 SUBSTORM ONSET  
 02/23/2000 - 02/28/2001      FY00: \$65,900      Total: \$65,900  
*Prin. Invest.:* K LIU  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9109**      **JOHNS HOPKINS UNIVERSITY**      **4909**  
 SIMULATING TRANSIENT PROCESSES AT THE MAGNETOPAUSE  
 02/23/2000 - 02/28/2003      FY00: \$71,000      Total: \$71,000  
*Prin. Invest.:* H KU  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9113**      **JOHNS HOPKINS UNIVERSITY**      **4910**  
 CRYOSAT SCIENCE ADVISORY GROUP  
 02/28/2000 - 02/28/2001      FY00: \$19,372      Total: \$19,372  
*Prin. Invest.:* K RANEY  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9118**      **JOHNS HOPKINS UNIVERSITY**      **4911**  
 ELECTROMAGNETIC ION CYCLOTRON WAVES ON AURORAL FIELD LINES  
 02/24/2000 - 04/30/2001      FY00: \$33,000      Total: \$33,000  
*Prin. Invest.:* R E ERLANDSON  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9186**      **JOHNS HOPKINS UNIVERSITY**      **4912**  
 THE CLUSTERING OF GALAXIES & DARK MATTER AT INTERMEDIATE  
 REDSHIFTS (ATP 99)  
 03/07/2000 - 03/14/2001      FY00: \$50,076      Total: \$50,076  
*Prin. Invest.:* A S SZALAY  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9187**      **JOHNS HOPKINS UNIVERSITY**      **4913**  
 PREDICTING THE SPECTRA OF GALACTIC BLACK HOLES (ATP 99)  
 03/07/2000 - 03/14/2001      FY00: \$95,179      Total: \$95,179  
*Prin. Invest.:* J H KROLIK  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9218**      **JOHNS HOPKINS UNIVERSITY**      **4914**  
 THE PHYSICS OF EXTRAGALACTIC RADIO/OPTICAL/X-RAY JETS  
 03/13/2000 - 07/14/2000      FY00: \$8,397      Total: \$8,397  
*Prin. Invest.:* E PERLMAN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9219**      **JOHNS HOPKINS UNIVERSITY**      **4915**  
 HOT MASSIVE STARS IN LOCAL GROUP GALAXIES: A MULTI WAVELENGTH  
 SPECTRAL ANALYSIS.  
 03/13/2000 - 03/14/2001      FY00: \$100,430      Total: \$100,430  
*Prin. Invest.:* L BIANCHI  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9220**      **JOHNS HOPKINS UNIVERSITY**      **4916**  
 MAPPING LARGE-SCALE STRUCTURE IN THE UNIVERSE  
 03/13/2000 - 03/14/2001      FY00: \$97,930      Total: \$97,930  
*Prin. Invest.:* B S JAIN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9240**      **JOHNS HOPKINS UNIVERSITY**      **4917**  
 ANALYSIS OF POLAR MESOSPHERIC CLOUDS USING SPECTROGRAPHIC  
 IMAGES ON A SATELLITE  
 03/13/2000 - 02/28/2001      FY00: \$69,900      Total: \$69,900  
*Prin. Invest.:* J CARBARY  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9278**      **JOHNS HOPKINS UNIVERSITY**      **4918**  
 A SPECTRAL STUDY OF A NEW CLASS OF RADIO QUASARS  
 03/16/2000 - 07/14/2000      FY00: \$663      Total: \$663  
*Prin. Invest.:* E PERLMAN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9296**      **JOHNS HOPKINS UNIVERSITY**      **4919**  
 INNOVATIVE APPROACHES TO LITTORAL ALTIMETRY FOR PREDICTION &  
 MONITORING OF NEAR-SHORE SEA  
 04/13/2000 - 04/14/2001      FY00: \$56,250      Total: \$56,250  
*Prin. Invest.:* R K RANEY  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9367**      **JOHNS HOPKINS UNIVERSITY**      **4920**  
 LOW-COST PLANETARY MISSIONS  
 04/03/2000 - 03/31/2001      FY00: \$35,000      Total: \$35,000  
*Prin. Invest.:* S KRIMIGIS  
*Tech. Officer:* GSFC/D GOLOBEKS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9426**      **JOHNS HOPKINS UNIVERSITY**      **4921**  
 SENSITIVITY OF COUPLED LAND-ATMOSPHERE BOUNDARY LAYER  
 DYNAMICS TO SURFACE HETEROGENEITY USING  
 04/11/2000 - 04/30/2003      FY00: \$136,191      Total: \$136,191  
*Prin. Invest.:* M B PARLANGE  
*Tech. Officer:* GSFC/K H BERGMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9432**      **JOHNS HOPKINS UNIVERSITY**      **4922**  
 SPACE PHYSICS DATA MARKUP LANGUAGE  
 04/18/2000 - 04/14/2001      FY00: \$110,000      Total: \$110,000  
*Prin. Invest.:* D MORRISON  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 13 - PHYSICS

**NAG 5 9456**      **JOHNS HOPKINS UNIVERSITY**      **4923**  
 ADAPTIVE INSTRUMENT MODULE (AIM)  
 04/13/2000 - 07/31/2001      FY00: \$78,692      Total: \$78,692  
*Prin. Invest.:* R F CONDE  
*Tech. Officer:* GSFC/P LUERS  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 9533**      **JOHNS HOPKINS UNIVERSITY**      **4924**  
 A SPECTRAL STUDY OF A NEW CLASS OF RADIO QUASARS (ADP98)  
 04/28/2000 - 06/30/2001      FY00: \$20,945      Total: \$20,945  
*Prin. Invest.:* E S PEARLMAN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9534**      **JOHNS HOPKINS UNIVERSITY**      **4925**  
 XTE PROPOSAL - VARIABILITY AND HARD-X-RAY SPECTRA OF BL  
 LACERTAE OBJECTS  
 05/04/2000 - 07/14/2000      FY00: \$0      Total: \$0  
*Prin. Invest.:* E PERLMAN  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9558**      **JOHNS HOPKINS UNIVERSITY**      **4926**  
 SOLAR CYCLE UV VARIATION INFLUENCE ON SUBSTORM AURORAL  
 SURGES  
 05/16/2000 - 05/14/2001      FY00: \$49,995      Total: \$49,995  
*Prin. Invest.:* P NEWELL  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9569**      **JOHNS HOPKINS UNIVERSITY**      **4927**  
 NEW ISTP SOLAR MAX: CONTINUED INTEGRATION OF INTE RBALL INTO  
 ISTP  
 05/08/2000 - 05/14/2001      FY00: \$60,989      Total: \$60,989  
*Prin. Invest.:* D G SIBECK  
*Tech. Officer:* GSFC/M DESCH  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9719**      **JOHNS HOPKINS UNIVERSITY**      **4928**  
 MOLECULAR AND ATOMIC LASER MASS ANALYSIS (MALMA) INSTRUMEN-  
 TATION FOR IN-SITU STUDIES OF PLANETARY  
 06/20/2000 - 06/30/2001      FY00: \$40,000      Total: \$40,000  
*Prin. Invest.:* R W MCENTIRE  
*Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/B BETTS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9872**      **JOHNS HOPKINS UNIVERSITY**      **4929**  
 A LOW POWER CROSSLINK TRANSCEIVER FOR NANOSAT COMMUNICA-  
 TIONS EXPERIMENT  
 08/10/2000 - 09/30/2001      FY00: \$400,000      Total: \$400,000  
*Prin. Invest.:* P STADTER  
*Tech. Officer:* GSFC/J BRISTOW  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 9878**      **JOHNS HOPKINS UNIVERSITY**      **4930**  
 ASTROPHYSICAL PROPERTIES OF ACCRETING BLACK HOLES IN NORMAL  
 GALAXY NUCLEI (LTSA 99)  
 08/28/2000 - 08/31/2001      FY00: \$40,000      Total: \$40,000  
*Prin. Invest.:* E COLBERT  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9903**      **JOHNS HOPKINS UNIVERSITY**      **4931**  
 ACTIVITIES TO SUPPORT SCIENCE PLANNING AND COORDINATION IN  
 ASSOCIATION WITH THE INTERNATIONAL SOLAR  
 08/30/2000 - 09/30/2001      FY00: \$15,997      Total: \$15,997  
*Prin. Invest.:* N J FOX  
*Tech. Officer:* GSFC/R A HOFFMAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9910**      **JOHNS HOPKINS UNIVERSITY**      **4932**  
 THE X-RAY PROPERTIES OF ULTRALUMINOUS GALAXIES: COSMOLOGICAL  
 IMPLICATIONS  
 09/05/2000 - 09/30/2001      FY00: \$21,000      Total: \$21,000  
*Prin. Invest.:* T HECKMAN  
*Tech. Officer:* GSFC/R M MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9948**      **JOHNS HOPKINS UNIVERSITY**      **4933**  
 STARBURST-DRIVEN OUTFLOWS & THE EVOLUTION OF DWARF GALAXIES  
 09/07/2000 - 08/31/2001      FY00: \$23,000      Total: \$23,000  
*Prin. Invest.:* T HECKMAN  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9963**      **JOHNS HOPKINS UNIVERSITY**      **4934**  
 CHARACTERIZING THE X-RAY SPECTRUM OF THE GALACTIC HALO  
 09/22/2000 - 09/30/2001      FY00: \$24,000      Total: \$24,000  
*Prin. Invest.:* W BLAIR  
*Tech. Officer:* GSFC/R MUSHOTZKY  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1133**      **JOHNS HOPKINS UNIVERSITY**      **4935**  
 INTERDISCIPLINARY SCIENTIST FOR THE ADVANCED X-RAY ASTRO-  
 PHYSIC FACILITY  
 01/11/1995 - 01/10/2000      FY00: \$0      Total: \$362,000  
*Prin. Invest.:* R GIACCONI, R BURG, NONE  
*Tech. Officer:* MSFC/M E ROSENTHAL  
*CASE Category:* 11 - ASTRONOMY

## NASA'S UNIVERSITY PROGRAM

## MARYLAND

<b>NAG 8 1257</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4936</b>	<b>NAGW 4882</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4944</b>
RESEARCH "MEASUREMENT OF LIQUID-TO-SOLID NUCLEATION RATES IN UNDERCOOLED METALLIC MELTS			WINDOWLESS FUV LAMPS		
04/18/1996 - 04/17/2000	FY00: \$27,083	Total: \$260,000	12/05/1995 - 12/31/1998	FY00: \$0	Total: \$40,000
Prin. Invest.: J L KATZ			Prin. Invest.: S R MCCANDISS		
Tech. Officer: MSFC/P DOWNEY, MSFC/D WOODARD			Tech. Officer: HQ/L TAFF, HQ/D W WEEDMAN		
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			CASE Category: 13 - PHYSICS		
<b>NAG 8 1377</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4937</b>	<b>NAS 3 99146</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4945</b>
R/S "NOVEL MICROGRAVITY OPTICAL TECHNIQUE FOR MOLECULARLY ENGINEERING ELECTROPHORETIC MEDIA.			THERMAL MANAGEMENT OF ROCKET BASED COMBINED CYCLE ENGINES		
07/23/1997 - 11/30/2000	FY00: \$129,000	Total: \$457,000	04/01/1999 - 10/01/1999	FY00: -\$709	Total: \$61,346
Prin. Invest.: D WIRTZ			Prin. Invest.: D VAN WIE		
Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO			Tech. Officer: GRC/C J TREFNY		
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 8 1527</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4938</b>	<b>NAS 5 00166</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4946</b>
AXAF INTERDISCIPLINARY SCIENTIST			DEVELOPMENT OF SOLID STATE UV SOURCE		
03/30/1998 - 09/30/2000	FY00: \$102,000	Total: \$254,000	06/14/2000 - 07/13/2001	FY00: \$174,220	Total: \$174,220
Prin. Invest.: R GIACCONI, C NORMAN			Prin. Invest.: J KANG		
Tech. Officer: MSFC/M SMITH, MSFC/B HAMBRICK			Tech. Officer: GSFC/L ZEIGENFUSS		
CASE Category: 11 - ASTRONOMY			CASE Category: 45 - ELECTRICAL ENGR		
<b>NAG 8 1648</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4939</b>	<b>NAS 5 30403</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4947</b>
RBCC ACCESS TO SPACE ASSESSMENT			SPACE TELESCOPE IMAGING SPECTROGRAPH PROGRAM SUPPORT		
11/24/1999 - 10/31/2000	FY00: \$96,583	Total: \$96,583	02/04/1988 - 09/30/2001	FY00: \$318,000	Total: \$2,505,865
Prin. Invest.: P J WALTRUP			Prin. Invest.: W MOOS		
Tech. Officer: MSFC/U HUETER			Tech. Officer: GSFC/D VITABLANO		
CASE Category: 42 - ASTRONAUTICAL ENGR			CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 8 1695</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4940</b>	<b>NAS 5 31373</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4948</b>
DEVELOPMENT OF A NEUTRON SPECTROMETER TO ASSESS BIOLOGICAL RADIATION DAMAGE BEHIND SPACECRAFT MAT.			EOS INVESTIGATION		
05/01/2000 - 11/30/2003	FY00: \$45,000	Total: \$45,000	12/13/1991 - 12/14/2001	FY00: \$0	Total: \$385,000
Prin. Invest.: R MAUER			Prin. Invest.: J SALISBURY		
Tech. Officer: MSFC/P DOTY			Tech. Officer: GSFC/H BLODGET		
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 9 1146</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4941</b>	<b>NAS 5 32865</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4949</b>
CALCIUM KINETICS DURING SPACE FLIGHT			DESIGN & DEVELOPMENT OF ADVANCED CAMERA SCIENCE		
09/14/1999 - 09/30/2003	FY00: \$0	Total: \$33,600	08/25/1995 - 06/30/2003	FY00: \$512,100	Total: \$3,256,277
Prin. Invest.: K O O'BRIEN			Prin. Invest.: D FORD, D ILLINGWORTH		
Tech. Officer: SSC/S M SMITH			Tech. Officer: GSFC/C KREBS		
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			CASE Category: 42 - ASTRONAUTICAL ENGR		
<b>NAG 9 1220</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4942</b>	<b>NAS 5 32985</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4950</b>
DEFINITION PHASE MARTIAN NEUTRON ENERGY SPECTROMETER			PHASE C/D DESIGN AND DEVELOPMENT OF THE FAR ULTRA- VIOLET SPECTROSCOPIC EXPLORER (FUSE) MISSION		
04/10/2000 - 08/11/2000	FY00: \$123,440	Total: \$123,440	11/22/1995 - 12/07/2002	FY00: \$11,699,385	Total: \$130,437,000
Prin. Invest.: R H MAURER			Prin. Invest.: H W MOOS		
Tech. Officer: JSC/T A SULLIVAN			Tech. Officer: GSFC/D R MENGERS		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 11 - ASTRONOMY		
<b>NAGW 3861</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4943</b>	<b>NAS 5 97179</b>	<b>JOHNS HOPKINS UNIVERSITY</b>	<b>4951</b>
JOHNS HOPKINS UNIV; STATISTICAL ANALYSIS OF TRIGONOMETRIC PARALLAXES			TIMED PHASE C/D LETTER CONTRACT		
01/31/1994 - 12/31/1998	FY00: -\$12	Total: \$159,288	06/16/1997 - 03/07/2001	FY00: \$17,114,491	Total: \$111,110,696
Prin. Invest.: S CASERTANO			Prin. Invest.: D GRANT		
Tech. Officer: HQ/R V STACHNIK, HQ/E J WEILER			Tech. Officer: GSFC/J J WOLFF		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		

**NAS 5 97271**      **JOHNS HOPKINS UNIVERSITY**      **4952**  
 AEROSPACE RESEARCH, DESIGN, AND DEVELOPMENT TASKS FOR NASA  
 10/01/1997 - 09/30/2002      FY00: \$55,484,061      Total: \$115,423,333  
*Prin. Invest.:* T COUGHLIN  
*Tech. Officer:* GSFC/J WOLFF  
*CASE Category:* 11 - ASTRONOMY

**NCC 3 812**      **JOHNS HOPKINS UNIVERSITY**      **4953**  
 USING SURFACTANTS TO CONTROL BUBBLE GROWTH COALESCENCE IN  
 NUCLEATE POOL BOILING  
 07/06/2000 - 05/31/2004      FY00: \$57,000      Total: \$57,000  
*Prin. Invest.:* K J STEBE  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 5 147**      **JOHNS HOPKINS UNIVERSITY**      **4954**  
 GRAND CHALLENGE RESEARCH  
 08/16/1996 - 06/03/2000      FY00: \$0      Total: \$1,201,000  
*Prin. Invest.:* P OLSON  
*Tech. Officer:* GSFC/J R FISCHER  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NCC 5 447**      **JOHNS HOPKINS UNIVERSITY**      **4955**  
 COOPERATIVE RESEARCH IN HIGH ENERGY ASTROPHYSICS BETWEEN  
 JHU AND GSFC  
 12/21/1999 - 12/31/2000      FY00: \$240,000      Total: \$240,000  
*Prin. Invest.:* E T VISHNIAC  
*Tech. Officer:* GSFC/K E WEAVER  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 500**      **JOHNS HOPKINS UNIVERSITY**      **4956**  
 ATMOSPHERIC TRANSPORT: COMPARISON OF OBSERVATIONS AND  
 MODELS  
 05/08/2000 - 05/14/2001      FY00: \$34,276      Total: \$34,276  
*Prin. Invest.:* D WAUGH  
*Tech. Officer:* GSFC/A R DOUGLASS  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 5 40029**      **JOHNS HOPKINS UNIVERSITY**      **4957**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/24/1997 - 01/31/2001      FY00: \$475,000      Total: \$1,770,000  
*Prin. Invest.:* R C HENRY  
*Tech. Officer:* GSFC/L KEEFER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50259**      **JOHNS HOPKINS UNIVERSITY**      **4958**  
 PROTEIN CRYSTALLIZATION AT INTERFACE STUDENT: JEFFREY ERICKSON  
 07/07/1999 - 06/30/2001      FY00: \$22,000      Total: \$44,000  
*Prin. Invest.:* K J STEBE  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50268**      **JOHNS HOPKINS UNIVERSITY**      **4959**  
 SURFACTANT FACILITATED SPREADING  
 07/08/1999 - 06/30/2001      FY00: \$22,000      Total: \$44,000  
*Prin. Invest.:* K J STEBE/VAN NGUYE  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50328**      **JOHNS HOPKINS UNIVERSITY**      **4960**  
 THE IMPACT OF DATA CONSTRAINTS IN GLOBAL CLIMATE MODELS  
 (STUDENT: ANDREA MOLOD)  
 08/17/2000 - 08/31/2001      FY00: \$22,000      Total: \$22,000  
*Prin. Invest.:* D WAUGH  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 9 50**      **JOHNS HOPKINS UNIVERSITY**      **4961**  
 AN INVESTIGATION OF THE ADDITIVITY AND LINEARITY  
 07/05/2000 - 07/10/2001      FY00: \$22,000      Total: \$22,000  
*Prin. Invest.:* J DICELLO  
*Tech. Officer:* JSC/F A CUCINOTTA  
*CASE Category:* 56 - MEDICAL

**NAG 5 3508**      **MORGAN STATE UNIVERSITY**      **4962**  
 FORGING A PARTNERSHIP: A TWENTY-FIRST CENTURY APPROACH TO  
 THE INVESTIGATION OF SCIENTIFIC...  
 10/31/1996 - 07/14/2000      FY00: \$0      Total: \$2,569,274  
*Prin. Invest.:* E DELOATCH  
*Tech. Officer:* GSFC/C SOFFEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4401**      **MORGAN STATE UNIVERSITY**      **4963**  
 MODELING AND CHANGE POINT DETECTION IN MODIS ENGINE  
 04/18/1997 - 12/31/2000      FY00: \$0      Total: \$36,000  
*Prin. Invest.:* J SMID  
*Tech. Officer:* GSFC/B MARKHAMR  
*CASE Category:* 21 - MATHEMATICS

**NAG 5 7136**      **MORGAN STATE UNIVERSITY**      **4964**  
 CHARACTERIZATION AND SIMULATION OF GALLIUM NITRIDE ULTRAVIO-  
 LETPHOTODETECTORS  
 03/16/1998 - 03/14/2001      FY00: \$100,000      Total: \$300,000  
*Prin. Invest.:* C J SCOTT  
*Tech. Officer:* GSFC/B MOTT  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 5 7623**      **MORGAN STATE UNIVERSITY**      **4965**  
 FUNDING FOR 1998 ENGINEERING ENRICHMENT PROGRAM AT MSU  
 08/03/1998 - 07/31/2000      FY00: \$0      Total: \$120,000  
*Prin. Invest.:* D WHITE  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NAG 5 8574**      **MORGAN STATE UNIVERSITY**      **4966**  
 SEM MULTIPURPOSE FACILITY/PHASE I  
 07/21/1999 - 07/14/2001      FY00: -\$37,821      Total: \$1,102,358  
*Prin. Invest.:* H WILLIAMS  
*Tech. Officer:* GSFC/P HOLLOWAY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8857**      **MORGAN STATE UNIVERSITY**      **4967**  
 INVESTIGATION OF THE MAGNETIC & ELECTRONIC PROPERTIES OF  
 METAL & METAL OXIDE FILMS & MULTILAYER FOR  
 09/28/1999 - 09/30/2000      FY00: \$0      Total: \$100,000  
*Prin. Invest.:* C WILLIAMS  
*Tech. Officer:* GSFC/J CHITWOOD  
*CASE Category:* 13 - PHYSICS

**NAG 5 8860** **MORGAN STATE UNIVERSITY** **4968**  
 SCIENCE ENGINEERING & MATHEMATICS (SEM) ENRICHMENT PROGRAM  
 FOR BALTIMORE MIDDLE & HIGH SCHOOL  
 09/28/1999 - 07/14/2001 FY00: \$0 Total: \$357,205  
 Prin. Invest.: H WILLIAMS  
 Tech. Officer: GSFC/D MENCHAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9215** **MORGAN STATE UNIVERSITY** **4969**  
 FORGING A PARTNERSHIP: A TWENTY-FIRST CENTURY APPROACH TO  
 THE INVESTIGATION OF SCIENTIFIC & TECHNOLOGY  
 03/09/2000 - 03/14/2001 FY00: \$850,000 Total: \$850,000  
 Prin. Invest.: E DELOATCH  
 Tech. Officer: GSFC/G SOFFEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 9710** **MORGAN STATE UNIVERSITY** **4970**  
 A PROPOSAL FOR NASA-RELATED RESEARCH CAPACITY BUILDING AND  
 OUTREACH BUILDING AND OUTREACH AT MORGAN  
 06/29/2000 - 06/30/2001 FY00: \$1,600,000 Total: \$1,600,000  
 Prin. Invest.: D N WILLIAMS  
 Tech. Officer: GSFC/C PERSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9895** **MORGAN STATE UNIVERSITY** **4971**  
 WIDEBAND, LOW POWER SAMPLE-AND-HOLD CIRCUIT FOR DIGITAL  
 MICROWAVE RADIOMETRY  
 08/29/2000 - 08/31/2001 FY00: \$6,200 Total: \$6,200  
 Prin. Invest.: D WHITE  
 Tech. Officer: GSFC/J PIEDMEIER  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 9 998** **MORGAN STATE UNIVERSITY** **4972**  
 SMART-SENSOR DESIGN INCORPORATING SIGNAL PROCESSING FOR  
 DATA-COMPRESSION AND FEATURE ENHANCEMENT  
 03/31/1998 - 06/30/2000 FY00: \$100,000 Total: \$300,000  
 Prin. Invest.: J E WHITNEY Prin. Invest.: NONE  
 Tech. Officer: JSC/K KRISHNAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 122** **MORGAN STATE UNIVERSITY** **4973**  
 MORGAN NETWORK RESOURCE TRAINING SITE  
 08/15/1995 - 08/14/2000 FY00: \$429,000 Total: \$2,873,523  
 Prin. Invest.: W LUPTON  
 Tech. Officer: GSFC/J BENNETT  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 5 199** **MORGAN STATE UNIVERSITY** **4974**  
 LABORATORY STUDY OF THE BEHAVIOR OF SATURATED SEDIMENT  
 06/10/1997 - 05/31/2000 FY00: \$0 Total: \$370,324  
 Prin. Invest.: D C HELM  
 Tech. Officer: GSFC/B G BILLS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 204** **MORGAN STATE UNIVERSITY** **4975**  
 THE MAGNETIC, TRANSPORT AND STRUCTURAL PROPERTIES OF  
 MAGNETIC OXIDE FILMS  
 06/11/1997 - 12/31/1999 FY00: \$0 Total: \$224,712  
 Prin. Invest.: C WILLIAMS, NONE  
 Tech. Officer: GSFC/J S CHITWOOD  
 CASE Category: 13 - PHYSICS

**NCC 2 1041** **TOWSON STATE UNIVERSITY** **4976**  
 THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM:  
 GRAIN DESTRUCTION PROCESS  
 06/03/1998 - 05/31/1999 FY00: \$0 Total: \$15,000  
 Prin. Invest.: M G WOLFIRE  
 Tech. Officer: ARC/D J HOLLENBACH  
 CASE Category: 11 - ASTRONOMY

**NCC 5 488** **TOWSON STATE UNIVERSITY** **4977**  
 MULTI-AGENT SYSTEMS IN SPACECRAFT: INTELLIGENT AGENTS AND  
 AGENT COMMUNITY MANAGEMENT  
 04/14/2000 - 08/31/2000 FY00: \$24,205 Total: \$24,205  
 Prin. Invest.: B N NAG  
 Tech. Officer: GSFC/W TRUSZKOWSKI  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 8249** **U OF MD CTR FOR ENVIRONMENTAL SCI-CAMBRIDGE** **4978**  
 TIMES-SCALES OF LAND-USE CHANGE AND EXPORT OF NITROGEN BASIN TO  
 THE COASTAL ZONE  
 08/19/1997 - 08/31/2001 FY00: \$7,351 Total: \$350,351  
 Prin. Invest.: P R FISHER  
 Tech. Officer: GSFC/A C JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6286** **U OF MD CTR FOR ENVIRONMENTAL SCI-CAMBRIDGE** **4979**  
 REMOTE OBSERVATIONS AND MODELING OF PHYTOPLANKTON  
 09/10/1997 - 08/31/2001 FY00: \$211,094 Total: \$642,445  
 Prin. Invest.: L HARDING  
 Tech. Officer: GSFC/J HARDING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6387** **U OF MD CTR FOR ENVIRONMENTAL SCI-CAMBRIDGE** **4980**  
 MODELLING N<sub>2</sub> AND CO<sub>2</sub> FIXATION BY THE OCEANIC DIAZOTROPHIC  
 CYANOBACTERIUM TRICHODESMIUM  
 10/18/1997 - 09/30/2001 FY00: \$49,347 Total: \$239,144  
 Prin. Invest.: R G HOOD  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7455** **U OF MD CTR FOR ENVIRONMENTAL SCI-CAMBRIDGE** **4981**  
 INTEGRATING REMOTE AND IN SITU SENSING TO DETECT AND PREDICT  
 CHANGE IN THE COASTAL ZONE  
 07/28/1998 - 07/31/2000 FY00: \$0 Total: \$50,696  
 Prin. Invest.: T C MALONE  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7602** **U OF MD CTR FOR ENVIRONMENTAL SCI-CAMBRIDGE** **4982**  
 REMOTE OBSERVATIONS IN THE CHOPTANK RIVER INDEX SITE: OCEAN  
 COLOR, SALINITY, TEMPERATURE AND CHLOROPHYLL  
 07/21/1998 - 08/31/2001 FY00: \$138,170 Total: \$352,383  
 Prin. Invest.: L W HARDING  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9527** **U OF MD CTR FOR ENVIRONMENTAL SCI-CAMBRIDGE** **4983**  
 WORKSHOP: DESIGN & IMPLEMENTATION PLAN FOR A HARMFUL ALGAL  
 BLOOMS OBSERVING SYSTEM (HABSOS), A  
 04/28/2000 - 04/30/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: T MALONE  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

<p><b>NAS 5 97131 U OF MD CTR FOR ENVIROMNTL SCI-CAMBRIDGE 4984</b>            VALIDATION OF OCEAN COLOR            09/12/1997 - 09/11/1999 FY00: \$0 Total: \$366,400  <i>Prin. Invest.:</i> D G CAPONE  <i>Tech. Officer:</i> GSFC/C MCCLAIN            CASE Category: 33 - OCEANOGRAPHY</p>	<p><b>NAG 1 2285 UNIVERSITY OF MARYLAND - COLLEGE PARK 4992</b>            INTERACTION OF A BOUNDARY LAYER WITH A TURBULANT WAKE            03/30/2000 - 03/31/2003 FY00: \$49,956 Total: \$49,956  <i>Prin. Invest.:</i> U PIOMELLI  <i>Tech. Officer:</i> LARC/C L STREETT/J L THOMAS            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NCC 5 493 U OF MD CTR FOR ENVIROMNTL SCI-CAMBRIDGE 4985</b>            REMOTE SENSING OF FOREST COMPOSITION AND STRUCTURE IN THE            CENTRAL APPALACHIANS USING EO-1 HYPE            04/19/2000 - 12/31/2000 FY00: \$68,081 Total: \$68,081  <i>Prin. Invest.:</i> P A TOWNSEND  <i>Tech. Officer:</i> GSFC/S G UNGAR            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 2 1122 UNIVERSITY OF MARYLAND - COLLEGE PARK 4993</b>            PROPOSAL FOR FURTHER DEVELOPMENT, SUPPORT, AND ENH ANCE-            MENT OF CONDUIT            03/17/1997 - 03/31/1999 FY00: \$0 Total: \$120,013  <i>Prin. Invest.:</i> W S LEVINE  <i>Tech. Officer:</i> ARC/M B TISCHLER            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NCC 5 494 UNIVERSITY OF BALTIMORE 4986</b>            ESTABLISHMENT OF GODDARD EARTH SCIENCE &amp; TECHN CTR ESTAB-            LISHING GODDARD EARTH SCIENCE AND TECHNOLOGY            05/11/2000 - 05/10/2005 FY00: \$2,826,171 Total: \$2,826,171  <i>Prin. Invest.:</i> R CURRAN  <i>Tech. Officer:</i> GSFC/R HARTLE            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 2 1231 UNIVERSITY OF MARYLAND - COLLEGE PARK 4994</b>            USE OF ON-BALDE CONTROLS FOR HANDLING QUALITIES EN HANCE-            MENT            06/24/1998 - 10/31/1999 FY00: \$0 Total: \$59,000  <i>Prin. Invest.:</i> R CELI  <i>Tech. Officer:</i> ARC/M B TISCHLER            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 1 1831 UNIVERSITY OF MARYLAND - COLLEGE PARK 4987</b>            NEXT GENERATION ALGORITHMS FOR SHORTWAVE RADIATION BUDGETS            AND CLIMATE RESEARCH            04/30/1996 - 12/31/1999 FY00: \$0 Total: \$0  <i>Prin. Invest.:</i> R T PINKER  <i>Tech. Officer:</i> LARC/A B CARLSON            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 2 1253 UNIVERSITY OF MARYLAND - COLLEGE PARK 4995</b>            LEARNING BINAURALLY-DIRECTED MOVEMENT: REQUEST FO R SPECIFIC            EQUIPMENT TO SUPPORT RESEARCH IN NEURO            08/26/1998 - 11/30/1998 FY00: \$0 Total: \$19,800  <i>Prin. Invest.:</i> S SHAMMA  <i>Tech. Officer:</i> ARC/C C JORGENSEN, ARC/C L JACKSON            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 1 1832 UNIVERSITY OF MARYLAND - COLLEGE PARK 4988</b>            DEVELOPMENT OF CORRECTIONS FOR BIOMASS BURNING EFFECTS IN            VERSION TWO OF GEWEX SRB ALGORITHM            04/30/1996 - 04/30/2000 FY00: \$0 Total: \$260,703  <i>Prin. Invest.:</i> R T PINKER  <i>Tech. Officer:</i> LARC/A B CARLSON            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 2 1311 UNIVERSITY OF MARYLAND - COLLEGE PARK 4996</b>            INSENSITIVITY OF CONTROL SYSTEM PERFORMANCE TO CON TROLLER &amp;            SYSTEM PARAMETERS            03/17/1999 - 01/14/2000 FY00: \$0 Total: \$35,143  <i>Prin. Invest.:</i> W S LEVINE  <i>Tech. Officer:</i> ARC/M B TISCHLER            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 1 1880 UNIVERSITY OF MARYLAND - COLLEGE PARK 4989</b>            LARGE EDDY SIMULATION OF THE SOUND EMISSION FROM UNSTEADY            FLOW SEPARATION            11/25/1996 - 11/30/1999 FY00: \$0 Total: \$140,001  <i>Prin. Invest.:</i> U PIOMELLI  <i>Tech. Officer:</i> LARC/J L THOMAS            CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 2 1329 UNIVERSITY OF MARYLAND - COLLEGE PARK 4997</b>            EVALUATION OF METHODOLOGY FOR TESTING AND ANALYSIS OF            ADVANCED ROTOR SYSTEMS            06/01/1999 - 04/30/2001 FY00: \$0 Total: \$137,436  <i>Prin. Invest.:</i> I CHOPRA  <i>Tech. Officer:</i> ARC/W G WARMBRODT            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 1 1897 UNIVERSITY OF MARYLAND - COLLEGE PARK 4990</b>            INVESTIGATION OF TROPICAL TROPOSPHERIC WATER VAPOR MY 1/3            02/13/1997 - 02/12/2000 FY00: \$6,001 Total: \$168,001  <i>Prin. Invest.:</i> A E DESSLER  <i>Tech. Officer:</i> LARC/G L MADDREA, LARC/L R POOLE            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 2 1352 UNIVERSITY OF MARYLAND - COLLEGE PARK 4998</b>            MECHANOSENSITIVE CHANNELS IN BACTERIA: FUNCTIONAL DOMAINS &amp;            MECHANISMS OF GATING            07/27/1999 - 07/31/2001 FY00: \$169,770 Total: \$302,584  <i>Prin. Invest.:</i> S I SUKHAREV  <i>Prin. Invest.:</i> NONE  <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY            CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p><b>NAG 1 2024 UNIVERSITY OF MARYLAND - COLLEGE PARK 4991</b>            DIRECT MEASUREMENTS OF TROPOSPHERIC OZONE FROM TOMS DATA            03/26/1998 - 01/31/2001 FY00: \$125,000 Total: \$351,000  <i>Prin. Invest.:</i> R D HUDSON  <i>Tech. Officer:</i> LARC/G L MADDREA, LARC/L R POOLE            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 2 1405 UNIVERSITY OF MARYLAND - COLLEGE PARK 4999</b>            QUAD TILTROTOR COMPUTATIONAL FLUID DYNAMICS PROGRA M            04/28/2000 - 04/30/2001 FY00: \$289,999 Total: \$289,999  <i>Prin. Invest.:</i> F SCHMITZ, J BAEDER  <i>Tech. Officer:</i> ARC/R A STRAWN, ARC/C TUNG            CASE Category: 41 - AERONAUTICAL ENGR</p>



**NAG 2 1407 UNIVERSITY OF MARYLAND - COLLEGE PARK 5000**  
 DYNAMICS OF HELICOPTERS WITH ON-BLADE CONTROLS  
 05/22/2000 - 05/31/2001 FY00: \$42,536 Total: \$42,536  
 Prin. Invest.: R CELI  
 Tech. Officer: ARC/M B TISCHER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 1867 UNIVERSITY OF MARYLAND - COLLEGE PARK 5001**  
 CRITICAL DYNAMICS FOR AMBIENT TEMPERATURE AND LOW TEMPERATURE PHASE TRANSITIONS  
 05/09/1996 - 01/31/2001 FY00: \$100,000 Total: \$422,000  
 Prin. Invest.: R A FERRELL  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 1961 UNIVERSITY OF MARYLAND - COLLEGE PARK 5002**  
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY  
 09/04/1996 - 05/31/2000 FY00: \$0 Total: \$242,216  
 Prin. Invest.: J QUINTIERE  
 Tech. Officer: GRC/H ROSS  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2106 UNIVERSITY OF MARYLAND - COLLEGE PARK 5003**  
 UNIVERSITY RESEARCH AND TRAINING PROGRAM IN HYPERSONIC PROPULSION/AIRFRAME INTEGRATION  
 02/05/1998 - 09/30/1999 FY00: \$0 Total: \$150,000  
 Prin. Invest.: M J LEWIS  
 Tech. Officer: GRC/S R THOMAS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2139 UNIVERSITY OF MARYLAND - COLLEGE PARK 5004**  
 SPECTRAL ELEMENT SIMULATIONS OF THERMAL CONVECTION IN A ROTATING HEMISPHERICAL SHELL WITH RADIAL G  
 03/17/1998 - 01/05/2001 FY00: \$0 Total: \$101,000  
 Prin. Invest.: A DEANE  
 Tech. Officer: GRC/A CHAIT  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2206 UNIVERSITY OF MARYLAND - COLLEGE PARK 5005**  
 INVESTIGATION OF POOL BOILING HEAT TRANSFER MECHANISMS IN MICROGRAVITY USING AN ARRAY OF SURFACE MODELS  
 10/28/1998 - 05/31/2001 FY00: \$56,000 Total: \$177,300  
 Prin. Invest.: J KIM  
 Tech. Officer: GRC/J B MCQUILLEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2223 UNIVERSITY OF MARYLAND - COLLEGE PARK 5006**  
 ROBUST DIAGNOSIS OF PLANETARY GEARTRAIN FAULTS ROBUST DIAGNOSIS OF PLANETARY GEARTRAIN FAULTS  
 01/08/1999 - 11/24/2001 FY00: \$72,000 Total: \$172,015  
 Prin. Invest.: D J PINES  
 Tech. Officer: GRC/D G LEWICKI  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2228 UNIVERSITY OF MARYLAND - COLLEGE PARK 5007**  
 SUBCOOLED POOL BOILING HEAT TRANSFER MECHANISMS IN MICROGRAVITY: TERRIER-IMPROVED ORION SOUNDING RO  
 02/12/1999 - 10/12/2000 FY00: \$0 Total: \$36,114  
 Prin. Invest.: P KIM  
 Tech. Officer: GRC/J MCQUILLEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2337 UNIVERSITY OF MARYLAND - COLLEGE PARK 5008**  
 DATA-BASE ON FUEL AIR MIXING AND COMBUSTION FOR NA TIONAL COMBUSTION  
 02/24/2000 - 02/02/2005 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: A K GUPTA  
 Tech. Officer: GRC/R R TACINA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2479 UNIVERSITY OF MARYLAND - COLLEGE PARK 5009**  
 GEOPHYSICAL FLOW EXPERIMENT IN A ROTATING SPHERICAL CAPACITOR, UM #000508-7778  
 07/26/2000 - 11/30/2003 FY00: \$15,865 Total: \$15,865  
 Prin. Invest.: D DEANE  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2480 UNIVERSITY OF MARYLAND - COLLEGE PARK 5010**  
 PROPULSION/AIRFRAME INTEGRATION FOR HYPERSONIC ACCESS-TO-SPACE  
 07/27/2000 - 09/30/2001 FY00: \$74,306 Total: \$74,306  
 Prin. Invest.: D J LEWIS  
 Tech. Officer: GRC/D T PALAC  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 2001 UNIVERSITY OF MARYLAND - COLLEGE PARK 5011**  
 SOLAR FLARE PHYSICS  
 07/01/1992 - 12/31/1999 FY00: \$0 Total: \$686,249  
 Prin. Invest.: M R KUNDU, E J SCHMAHL, M J ASCHWANDER  
 Tech. Officer: GSFC/C J CRANNELL  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2400 UNIVERSITY OF MARYLAND - COLLEGE PARK 5012**  
 ASTROPHYSICS CONFERENCE SUPPORT  
 10/13/1993 - 09/30/1999 FY00: \$0 Total: \$175,000  
 Prin. Invest.: J D TRASKO  
 Tech. Officer: GSFC/S S HOLT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2754 UNIVERSITY OF MARYLAND - COLLEGE PARK 5013**  
 PREPARATION OF FLIGHT OPERATIONS AND IWS INTEGRATION OF THE CELIAS EXPERIMENT ON THE SOHO SPACECRAFT  
 10/18/1994 - 10/31/1999 FY00: \$0 Total: \$1,837,731  
 Prin. Invest.: F IPAVICH  
 Tech. Officer: GSFC/A POLAND  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2926 UNIVERSITY OF MARYLAND - COLLEGE PARK 5014**  
 MULTI-MISSION AND MULTISPECTRAL ASTROPHYSICS DATA CATALOG MANAGEMENT SYSTEM  
 04/03/1995 - 06/14/2000 FY00: \$0 Total: \$269,211  
 Prin. Invest.: N ROUSSOPOULOS  
 Tech. Officer: GSFC/C Y CHEUNG  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 2963 UNIVERSITY OF MARYLAND - COLLEGE PARK 5015**  
 SOLAR CYCLE DYNAMICS OF SOLAR MAGNETOSPHERIC AND HELIOSPHERIC PARTICLES AND LONG-TERM ATMOSPHERIC...  
 06/09/1995 - 09/30/2000 FY00: \$0 Total: \$4,114,335  
 Prin. Invest.: G M MASON  
 Tech. Officer: GSFC/T T VON ROSENINGE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 3028 UNIVERSITY OF MARYLAND - COLLEGE PARK 5016**  
 THE THEORETICAL PROPERTIES OF OLD STELLAR POPULA- TIONS  
 10/02/1995 - 10/14/2000 FY00: \$0 Total: \$285,608  
*Prin. Invest.:* R A BELL  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3134 UNIVERSITY OF MARYLAND - COLLEGE PARK 5017**  
 IMGRASS RADIATION AND REMOTE SENSING PROGRAMS IN SUPPORT OF  
 BSRN  
 01/23/1996 - 09/30/1999 FY00: \$0 Total: \$45,000  
*Prin. Invest.:* D T PINKER  
*Tech. Officer:* GSFC/D CHOW  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3172 UNIVERSITY OF MARYLAND - COLLEGE PARK 5018**  
 COMPARISON OF THE RADIATIVE AND PHYSIOLOGICAL EFFE CTS OF  
 DOUBLED CO2 ON THEGLOBAL CLIMATE ....  
 02/22/1996 - 08/31/1999 FY00: \$0 Total: \$276,676  
*Prin. Invest.:* L BOUNOUA  
*Tech. Officer:* GSFC/P J SELLERS, GSFC/J G COLLATZ  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3361 UNIVERSITY OF MARYLAND - COLLEGE PARK 5019**  
 ISO DATA ANALYSIS IN PROGRAM FOR RESEARCH TO BE CO NDUCTED AT  
 THE UMD  
 08/28/1996 - 08/31/2001 FY00: \$0 Total: \$196,200  
*Prin. Invest.:* D G CURRLA  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3454 UNIVERSITY OF MARYLAND - COLLEGE PARK 5020**  
 TERRESTRIAL MONITORING AT HIGH SPATIAL RESOLUTION: THE ROLE OF  
 LANDSAT-TYPESENSORS IN MISSION.....  
 10/07/1996 - 12/31/2000 FY00: \$458,983 Total: \$1,573,041  
*Prin. Invest.:* S N GOWARD  
*Tech. Officer:* GSFC/D L WILLIAMS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3455 UNIVERSITY OF MARYLAND - COLLEGE PARK 5021**  
 ENHANCED ANTARCTIC RESEARCH WITH LANDSAT: ICE SHEE T  
 DYNAMICS, HISTORY, AND CARTOGRAPHY  
 10/07/1996 - 12/31/2000 FY00: \$49,868 Total: \$212,438  
*Prin. Invest.:* M A FAHNSTOCK  
*Tech. Officer:* GSFC/D L WILLIAMS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3548 UNIVERSITY OF MARYLAND - COLLEGE PARK 5022**  
 RADAR BACKSCATTER MODELING AND ALGORITHM DEVELOPME NT FOR  
 FORREST PARAMETERSRETRIEVAL FROM SAR DATA  
 11/27/1996 - 11/30/1999 FY00: \$17,495 Total: \$319,146  
*Prin. Invest.:* S LIANG, G SUN  
*Tech. Officer:* GSFC/J RANSON  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3678 UNIVERSITY OF MARYLAND - COLLEGE PARK 5023**  
 TROPOSPHERIC CONVECTION AND STRATOSPHERE-TROPOSPHE ON  
 PHOTOCHEMISTRY, AEROSOLS, AND CLIMATE  
 01/04/1997 - 01/14/2001 FY00: \$0 Total: \$830,000  
*Prin. Invest.:* K E PICKERING  
*Tech. Officer:* GSFC/M D HALL  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 3836 UNIVERSITY OF MARYLAND - COLLEGE PARK 5024**  
 LOW LUMINOSITY ACCRETION ONTO COMPACT OBJECTS  
 02/11/1997 - 02/14/2000 FY00: \$0 Total: \$219,000  
*Prin. Invest.:* J L WANG  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3840 UNIVERSITY OF MARYLAND - COLLEGE PARK 5025**  
 MAGNETOHYDRODYNAMIC MODELS OF THE COLD INTERSTELLA  
 02/14/1997 - 02/14/2001 FY00: \$0 Total: \$217,500  
*Prin. Invest.:* E C OSTRICKER  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3960 UNIVERSITY OF MARYLAND - COLLEGE PARK 5026**  
 THE EFFECT OF VARIATIONS IN PACIFIC FRESH-WATER AN INDIAN OCEAN  
 02/18/1997 - 01/31/2001 FY00: \$0 Total: \$350,884  
*Prin. Invest.:* R WAJSOWICZ  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 5 4056 UNIVERSITY OF MARYLAND - COLLEGE PARK 5027**  
 SATELLITE BASED IDENTIFICATION OF LINKED VEGETATIO SURFACE  
 TEMPERATURE ANOMALY AREAS  
 03/11/1997 - 03/14/2001 FY00: \$0 Total: \$400,350  
*Prin. Invest.:* J R TOWNSHEND  
*Tech. Officer:* GSFC/C J TUCKER  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4080 UNIVERSITY OF MARYLAND - COLLEGE PARK 5028**  
 OBSERVATIONS OF COMETS AND ASTEROIDS  
 04/11/1997 - 11/30/2000 FY00: \$0 Total: \$300,000  
*Prin. Invest.:* D F A'HEARN  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4092 UNIVERSITY OF MARYLAND - COLLEGE PARK 5029**  
 A SPECTROSCOPIC INVESTIGATION INTO THE "MISSING UV  
 03/10/1997 - 12/31/1999 FY00: \$0 Total: \$135,046  
*Prin. Invest.:* D C BALACHANDRAN  
*Tech. Officer:* GSFC/H HASAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4152 UNIVERSITY OF MARYLAND - COLLEGE PARK 5030**  
 CROSS CORRELATION OF SOLAR WIND PLASMA PARAMETERS SOHO AND  
 SWE ON WIND  
 03/25/1997 - 03/31/2000 FY00: \$0 Total: \$147,530  
*Prin. Invest.:* D A COPLAN  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 13 - PHYSICS

**NAG 5 4186 UNIVERSITY OF MARYLAND - COLLEGE PARK 5031**  
 A STUDY WITH ALTIMETRY OF LOW FREQUENCY VARIABILIT KUROSHIO  
 EXTENSION  
 04/01/1997 - 03/31/2001 FY00: -\$4,451 Total: \$189,814  
*Prin. Invest.:* L WANG  
*Tech. Officer:* GSFC/N MAYNARD  
*CASE Category:* 33 - OCEANOGRAPHY

<b>NAG 5 4201 UNIVERSITY OF MARYLAND - COLLEGE PARK 5032</b> X-RAY EMISSION FROM COMETS 03/17/1997 - 02/29/2000 FY00: -\$40,000 Total: \$80,000 Prin. Invest.: D F A'HEARN Tech. Officer: GSFC/W HUEBNER CASE Category: 11 - ASTRONOMY	<b>NAG 5 4809 UNIVERSITY OF MARYLAND - COLLEGE PARK 5040</b> ADVANCED AUTOMATION CONCEPTS IN SPACEFLIGHT DYNAMI NAVIGATION 07/30/1997 - 12/31/1999 FY00: \$0 Total: \$141,175 Prin. Invest.: D SCHMIDT, NONE Tech. Officer: GSFC/D WEIDOW CASE Category: 42 - ASTRONAUTICAL ENGR
<b>NAG 5 4255 UNIVERSITY OF MARYLAND - COLLEGE PARK 5033</b> VARIABLE ICE-SHEET DISCHARGE & COASTAL CHANGE IN W 04/04/1997 - 12/31/1999 FY00: \$0 Total: \$81,290 Prin. Invest.: M FAHNESTOCK Tech. Officer: GSFC/R H THOMAS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 4811 UNIVERSITY OF MARYLAND - COLLEGE PARK 5041</b> DEFORESTRATION AND DEGRADATION IN SOUTHERN AND CEN 06/25/1997 - 10/31/2000 FY00: \$73,120 Total: \$580,000 Prin. Invest.: S PRINCE Tech. Officer: GSFC/G C GUTMAN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 4278 UNIVERSITY OF MARYLAND - COLLEGE PARK 5034</b> GLOBAL MHD SIMULATION OF THE SOLAR NEBULA 04/01/1997 - 03/31/2000 FY00: \$0 Total: \$144,586 Prin. Invest.: P M STONE Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY	<b>NAG 5 4861 UNIVERSITY OF MARYLAND - COLLEGE PARK 5042</b> CLIMATE CHANGE, EXTREME COASTAL WATER LEVEL EVENTS EROSION 06/20/1997 - 06/30/1999 FY00: -\$135 Total: \$139,865 Prin. Invest.: B DOUGLAS, NONE Tech. Officer: GSFC/M BALTUCK CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 4313 UNIVERSITY OF MARYLAND - COLLEGE PARK 5035</b> A SPACE PHYSICS ANALYSIS AND PLANNING TOOL 05/09/1997 - 12/31/2000 FY00: \$0 Total: \$312,500 Prin. Invest.: D C GOODRICH Tech. Officer: GSFC/J BREDEKAMP CASE Category: 22 - COMPUTER SCIENCE	<b>NAG 5 5061 UNIVERSITY OF MARYLAND - COLLEGE PARK 5043</b> SEARCHING FOR ANTIMATTER AND COSMIC RAY STUDIES USING BESS 05/09/1996 - 05/31/2000 FY00: \$0 Total: \$293,600 Prin. Invest.: E S SEO Tech. Officer: GSFC/H C NEDDLEMAN, GSFC/B A MERRITT CASE Category: 13 - PHYSICS
<b>NAG 5 4429 UNIVERSITY OF MARYLAND - COLLEGE PARK 5036</b> A LABORATORY AND OBSERVATIONAL STUDY OF THE CHEMIC PROTO- STELLAR NEBULAE 05/06/1997 - 09/30/2000 FY00: \$0 Total: \$137,670 Prin. Invest.: D G MUNDY Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY	<b>NAG 5 5062 UNIVERSITY OF MARYLAND - COLLEGE PARK 5044</b> THE ADVANCED THIN IONIZATION CALORIMETER (ATIC) BALLOON EXPERI- MENT 03/29/1996 - 03/31/2001 FY00: \$271,800 Total: \$1,534,597 Prin. Invest.: E S SEO Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MARRITT CASE Category: 13 - PHYSICS
<b>NAG 5 4638 UNIVERSITY OF MARYLAND - COLLEGE PARK 5037</b> DEVELOPMENT OF ION AND ELECTRON PLASMA INSTRUMENT W DESIGN CONCEPTS FOR THE MINIMUM SOLAR MISSION 05/30/1997 - 09/30/2000 FY00: \$0 Total: \$18,951 Prin. Invest.: M A COPLAN Tech. Officer: GSFC/E C SITTLER CASE Category: 13 - PHYSICS	<b>NAG 5 5155 UNIVERSITY OF MARYLAND - COLLEGE PARK 5045</b> OPTIMIZED CALORIMETER FOR ACCESS MEASUREMENTS OF Z-1-26 NUCLEI AND ELECTRONS 03/26/1998 - 03/30/2001 FY00: \$29,200 Total: \$247,200 Prin. Invest.: E S SEO Tech. Officer: GSFC/B A MERRITT/ CASE Category: 13 - PHYSICS
<b>NAG 5 4662 UNIVERSITY OF MARYLAND - COLLEGE PARK 5038</b> DATA ASSIMILATIVE ANALYSIS OF THE GGS DATA SET USI 06/05/1997 - 08/31/1999 FY00: -\$18,069 Total: \$41,150 Prin. Invest.: D E LOPEZ Tech. Officer: GSFC/D EVANS CASE Category: 13 - PHYSICS	<b>NAG 5 5204 UNIVERSITY OF MARYLAND - COLLEGE PARK 5046</b> COSMIC-RAY ORIGIN, ACCELERATION, AND PROPAGATION SELECTED UNDER THE PRESIDENTIAL EARLY CAREER AWARD 06/24/1998 - 06/30/2003 FY00: \$100,000 Total: \$300,000 Prin. Invest.: E S SEO Tech. Officer: GSFC/B A MERRITT CASE Category: 13 - PHYSICS
<b>NAG 5 4740 UNIVERSITY OF MARYLAND - COLLEGE PARK 5039</b> THEORETICAL MODELS OF COMETARY OBSERVATIONS 06/04/1997 - 05/31/2000 FY00: \$0 Total: \$49,737 Prin. Invest.: D F A'HEARN Tech. Officer: GSFC/W HUEBNER CASE Category: 11 - ASTRONOMY	<b>NAG 5 5206 UNIVERSITY OF MARYLAND - COLLEGE PARK 5047</b> COSMIC RAY ENERGISTICS AND MASS (CREAM) COSMIC RAY ENERGISTICS AND MASS (CREAM) 09/22/1998 - 05/31/2000 FY00: \$0 Total: \$232,027 Prin. Invest.: E S SEO Tech. Officer: WFF/B A MERRITT CASE Category: 13 - PHYSICS

**NAG 5 5225 UNIVERSITY OF MARYLAND - COLLEGE PARK 5048**  
 GRANT NAG5-5225 FOR ANTIMATTER AND COSMIC RAY STUDIES USING  
 BESS. PI DR. EUN-SUK SEO  
 03/16/1999 - 03/11/2002 FY00: \$89,100 Total: \$186,100  
*Prin. Invest.:* E S SEO  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5249 UNIVERSITY OF MARYLAND - COLLEGE PARK 5049**  
 COSMIC RAY ENERGISTICS AND MASS (CREAM) COSMIC RAY ENERGISTICS  
 AND MASS (CREAM)  
 03/13/2000 - 02/10/2003 FY00: \$1,028,200 Total: \$1,028,200  
*Prin. Invest.:* E SEO  
*Tech. Officer:* GSFC/B MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5263 UNIVERSITY OF MARYLAND - COLLEGE PARK 5050**  
 SOUNDING ROCKET EXPERIMENT TO EXPLORE ELECTRO-DYNAMICS  
 COUPLING  
 03/02/2000 - 02/21/2003 FY00: \$61,900 Total: \$61,900  
*Prin. Invest.:* M A COPLAN  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 6004 UNIVERSITY OF MARYLAND - COLLEGE PARK 5051**  
 CHARACTERIZING LAND-COVER HETEROGENEITY AND LAND-C SENSOR  
 SATELLITE DATA  
 08/28/1997 - 03/14/2001 FY00: \$72,800 Total: \$573,934  
*Prin. Invest.:* D DEFRIES  
*Tech. Officer:* GSFC/G C GUTMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6044 UNIVERSITY OF MARYLAND - COLLEGE PARK 5052**  
 WASP: A WIDEBAND AUTOCORRELATOR FOR HETERODYNE SP  
 07/24/1997 - 06/30/2000 FY00: \$0 Total: \$109,977  
*Prin. Invest.:* D HARRIS  
*Tech. Officer:* GSFC/H THRONSON  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6059 UNIVERSITY OF MARYLAND - COLLEGE PARK 5053**  
 COLLISIONLESS SHOCK PHENOMENA IN THE SOLAR ATMOSPHERIC RADIO  
 EMISSION  
 07/29/1997 - 06/30/2001 FY00: \$0 Total: \$139,548  
*Prin. Invest.:* D THEJAPPA  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6069 UNIVERSITY OF MARYLAND - COLLEGE PARK 5054**  
 BOREAL ECOSYSTEM-ATMOSPHERE INFORMATION SYSTEMS DE  
 07/28/1997 - 06/30/1999 FY00: -\$5,220 Total: \$87,259  
*Prin. Invest.:* K F HUEMMERICH  
*Tech. Officer:* GSFC/F G HALL  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6141 UNIVERSITY OF MARYLAND - COLLEGE PARK 5055**  
 SPECTROSCOPY OF X-RAY EMISSION FROM COMETS P/ENCKE  
 08/01/1997 - 07/31/1999 FY00: -\$407 Total: \$15,793  
*Prin. Invest.:* C LISSE  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6142 UNIVERSITY OF MARYLAND - COLLEGE PARK 5056**  
 HARD X-RAY SOURCES IN ACTIVE GALACTIC NUCLEI WITH  
 08/01/1997 - 07/31/1999 FY00: \$0 Total: \$19,000  
*Prin. Invest.:* A WILSON  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6152 UNIVERSITY OF MARYLAND - COLLEGE PARK 5057**  
 TO SUPPORT BASIC RESEARCH IN THE DEVELOPMENT OF A NUMERICAL  
 SIMULATION OF THE MHD EQUATIONS IN SPHE  
 09/08/1997 - 07/14/2000 FY00: \$79,957 Total: \$465,012  
*Prin. Invest.:* A DEANE  
*Tech. Officer:* GSFC/M L GOLDSTEIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 6190 UNIVERSITY OF MARYLAND - COLLEGE PARK 5058**  
 MAGNETIC RECONNECTION AND ASSOCIATED WAVE AND PARTICLE  
 LESS PLASMA  
 08/13/1997 - 06/30/2000 FY00: \$0 Total: \$140,000  
*Prin. Invest.:* D F DRAKE  
*Tech. Officer:* GSFC/J BOHLIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 6234 UNIVERSITY OF MARYLAND - COLLEGE PARK 5059**  
 THE INTERACTION OF LUMINOUS BLUE VARIABLES WITH TH  
 08/19/1997 - 08/14/1999 FY00: -\$2,489 Total: \$1,411  
*Prin. Invest.:* S M WHITE  
*Tech. Officer:* GSFC/R PETRE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6256 UNIVERSITY OF MARYLAND - COLLEGE PARK 5060**  
 COMPARISON BETWEEN GLOBAL MHD SIMULATION AND MULTI OBSERVA-  
 TIONS  
 08/27/1997 - 08/31/1999 FY00: \$0 Total: \$60,000  
*Prin. Invest.:* D E LOPEZ  
*Tech. Officer:* GSFC/J BOHLIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 6257 UNIVERSITY OF MARYLAND - COLLEGE PARK 5061**  
 RESEARCH IN SOLAR RADIO ASTRONOMY AT SHORT WAVELEN  
 08/27/1997 - 08/31/2000 FY00: \$0 Total: \$149,000  
*Prin. Invest.:* D KUNDU  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6282 UNIVERSITY OF MARYLAND - COLLEGE PARK 5062**  
 DETECTING THE LOCATION, SPATIAL EXTENT, RATES AND TROPICAL  
 DEFORESTATION  
 09/22/1997 - 12/31/1999 FY00: \$0 Total: \$498,105  
*Prin. Invest.:* J TOWNSHEND  
*Tech. Officer:* GSFC/A C JANETOS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6319 UNIVERSITY OF MARYLAND - COLLEGE PARK 5063**  
 COMBINING REMOTE SENSING AND HYDROLOGICAL MODELING ENERGY  
 BALANCE STUDIES  
 09/11/1997 - 12/31/2000 FY00: \$0 Total: \$453,762  
*Prin. Invest.:* R DUBAYAH  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6364 UNIVERSITY OF MARYLAND - COLLEGE PARK 5064**  
 A VERSION 2 AVHRR MULTIREOLUTION LAND PATHFINDER  
 09/17/1997 - 06/30/1999 FY00: -\$136 Total: \$484,870  
 Prin. Invest.: J TOWNSHEND  
 Tech. Officer: GSFC/T JANEOTS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6421 UNIVERSITY OF MARYLAND - COLLEGE PARK 5065**  
 GLOBAL VEGETATION DYNAMICS  
 09/26/1997 - 06/30/2001 FY00: \$180,353 Total: \$693,429  
 Prin. Invest.: S D PRINCE  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6443 UNIVERSITY OF MARYLAND - COLLEGE PARK 5066**  
 RESEARCH IN SPACE OPERATIONS AND TELEROBOTICS  
 11/12/1997 - 10/31/1999 FY00: \$0 Total: \$812,500  
 Prin. Invest.: D AKIN  
 Tech. Officer: GSFC/D LAVERY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6459 UNIVERSITY OF MARYLAND - COLLEGE PARK 5067**  
 VALIDATING MODIS/MISR LAND SURFACE REFLECTING AND ALBEDO PRODUCTS  
 10/14/1997 - 09/30/2001 FY00: \$101,192 Total: \$293,549  
 Prin. Invest.: S LIANG  
 Tech. Officer: GSFC/D STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6464 UNIVERSITY OF MARYLAND - COLLEGE PARK 5068**  
 EOS VALIDATION ACTIVITY IN A DESERT ENCROACHMENT ZONE OF SUB-SAHEL AFRICA  
 10/14/1997 - 09/30/2001 FY00: \$122,715 Total: \$416,931  
 Prin. Invest.: R PINKER  
 Tech. Officer: GSFC/D STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6483 UNIVERSITY OF MARYLAND - COLLEGE PARK 5069**  
 EVALUATION OF OPERATIONAL LONGWAVE RADIATION BUDGET PARAMETERS USING THE GOES SOUNDERS  
 11/18/1997 - 09/30/2001 FY00: \$219,194 Total: \$630,014  
 Prin. Invest.: P ELLINGSON  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6526 UNIVERSITY OF MARYLAND - COLLEGE PARK 5070**  
 MECHANOSENSITIVE ION CHANNELS IN BACTERIA  
 04/02/1998 - 02/28/2000 FY00: \$0 Total: \$243,244  
 Prin. Invest.: S I SUKHAVREV  
 Tech. Officer: GSFC/L P CHAMBERS  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 6547 UNIVERSITY OF MARYLAND - COLLEGE PARK 5071**  
 ORIGIN AND IMPACT OF NUCLEAR ACTIVITY IN GALAXIES (LTSA)  
 10/29/1997 - 10/31/2000 FY00: \$31,400 Total: \$85,152  
 Prin. Invest.: S VEILLEUX  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6616 UNIVERSITY OF MARYLAND - COLLEGE PARK 5072**  
 NEW METHODS FOR MEASURING ICE MOTION: THE FIELD COMPONENT REQUIRED FOR SARINTERFEROMETRY  
 11/18/1997 - 06/30/1999 FY00: \$0 Total: \$98,551  
 Prin. Invest.: M FAHNESTOCK  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6630 UNIVERSITY OF MARYLAND - COLLEGE PARK 5073**  
 COREGISTRATION, THRESHOLDING, AND STOCHASTIC METHODS OF VALIDATION OF RAINFALL ESTIMATES FROM SPA  
 12/05/1997 - 01/14/2001 FY00: \$0 Total: \$165,000  
 Prin. Invest.: B KEDEM  
 Tech. Officer: GSFC/O A THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6667 UNIVERSITY OF MARYLAND - COLLEGE PARK 5074**  
 EVALUATION OF ACCURACIES IN GEOPHYSICAL PARAMETERS DERIVED FROM PATHFINDER DATA  
 12/10/1997 - 12/31/2000 FY00: \$122,817 Total: \$363,808  
 Prin. Invest.: P PINKER  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6682 UNIVERSITY OF MARYLAND - COLLEGE PARK 5075**  
 INTERANNUAL VARIABILITY, TRENDS, AND TRACER CORRELATIONS IN THE UARS DATA SET  
 12/08/1997 - 11/30/2000 FY00: \$54,976 Total: \$158,542  
 Prin. Invest.: D B CONSIDINE  
 Tech. Officer: GSFC/A DOUGLASS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6699 UNIVERSITY OF MARYLAND - COLLEGE PARK 5076**  
 ENHANCED METADATA EXTRACTION FOR NASA'S REGIONAL VALIDATION CENTERS SYSTEM  
 12/12/1997 - 03/31/2001 FY00: \$30,000 Total: \$147,770  
 Prin. Invest.: J JAJA  
 Tech. Officer: GSFC/J LEMONIGNE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 6750 UNIVERSITY OF MARYLAND - COLLEGE PARK 5077**  
 ANALYSIS TOOLS FOR IR LINE AND CONTINUUM OBSERVATIONS; COBE AND THE STRUCTURE OF THE GALACTIC I  
 01/12/1998 - 01/14/2001 FY00: \$70,700 Total: \$208,147  
 Prin. Invest.: M WOLFIRE  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6958 UNIVERSITY OF MARYLAND - COLLEGE PARK 5078**  
 RXTE PROPOSAL - X-RAY FLARES FROM THE YOUNG ACTIVE K DWARF AB DORADUS  
 02/06/1998 - 01/31/2000 FY00: \$0 Total: \$26,442  
 Prin. Invest.: S WHITE  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6970 UNIVERSITY OF MARYLAND - COLLEGE PARK 5079**  
 MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM  
 MULTISENSOR AND MULTITEMPORAL DATA  
 03/12/1998 - 02/28/2001 FY00: \$98,876 Total: \$243,905  
*Prin. Invest.:* R E DEFRIES  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7058 UNIVERSITY OF MARYLAND - COLLEGE PARK 5080**  
 ICE FLOW IN THE NORTHEAST GREENLAND ICE STREAM: MEASUREMENT  
 AND ANALYSIS  
 03/04/1998 - 02/28/2001 FY00: \$110,958 Total: \$272,998  
*Prin. Invest.:* M FAHNESTOCK  
*Tech. Officer:* GSFC/S GOGINENI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7069 UNIVERSITY OF MARYLAND - COLLEGE PARK 5081**  
 TRANSPORT OF ENERGETIC PARTICLES IN THE GALAXY - A TP  
 03/02/1998 - 02/28/2001 FY00: \$67,137 Total: \$202,993  
*Prin. Invest.:* A LUKASIAK  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7111 UNIVERSITY OF MARYLAND - COLLEGE PARK 5082**  
 SOLAR WIND AND SUPRATHERMAL ION COMPOSITION ON WIN D  
 03/25/1998 - 03/14/2001 FY00: \$175,000 Total: \$1,075,000  
*Prin. Invest.:* G GLOECKLER  
*Tech. Officer:* GSFC/K OBILVIE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7126 UNIVERSITY OF MARYLAND - COLLEGE PARK 5083**  
 DYNAMIC QUERIES INTERFACES FOR THE EOSDIS INFORMATION SYSTEM  
 02/26/1998 - 12/31/1999 FY00: \$0 Total: \$281,299  
*Prin. Invest.:* B SHNEIDERMAN  
*Tech. Officer:* GSFC/C ROUFF  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 7141 UNIVERSITY OF MARYLAND - COLLEGE PARK 5084**  
 PIONEER 10/11 AND ULYSSES STUDY OF ENERGETIC PARTICLES IN  
 THE HELIOSPHERE  
 03/12/1998 - 02/28/2001 FY00: \$105,500 Total: \$329,500  
*Prin. Invest.:* F B McDONALD  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7145 UNIVERSITY OF MARYLAND - COLLEGE PARK 5085**  
 EMISSION PROCESSES ASSOCIATED WITH SOLAR TYPE III RADIO BURSTS  
 03/23/1998 - 04/14/2001 FY00: \$54,651 Total: \$137,618  
*Prin. Invest.:* T GOLLA  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7180 UNIVERSITY OF MARYLAND - COLLEGE PARK 5086**  
 MEV-ENERGY ELECTRONS IN SOLAR FLARES  
 03/31/1998 - 03/31/2000 FY00: \$0 Total: \$13,700  
*Prin. Invest.:* M R KUNDU  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7228 UNIVERSITY OF MARYLAND - COLLEGE PARK 5087**  
 MO & DA PHASE FOR THE SUPRATHERMAL THROUGH ENERGETIC  
 PARTICLE DETECTOR (STEP) SUBSYSTEM OF THE EPA  
 04/24/1998 - 04/14/2000 FY00: \$0 Total: \$220,000  
*Prin. Invest.:* G MASON  
*Tech. Officer:* GSFC/T VONROSENVEINGE  
*CASE Category:* 13 - PHYSICS

**NAG 5 7232 UNIVERSITY OF MARYLAND - COLLEGE PARK 5088**  
 CORONAL HEATING AND TEMPERATURE DISTRIBUTIONS  
 04/08/1998 - 04/30/2000 FY00: \$0 Total: \$34,126  
*Prin. Invest.:* S M WHITE  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7263 UNIVERSITY OF MARYLAND - COLLEGE PARK 5089**  
 VERTICAL TRANSPORT PROCESSES IN THE SASS/GMI CHEMICAL  
 TRANSPORT MODEL: DEVELOPMENT, EVALUATION, AND  
 04/29/1998 - 04/30/2001 FY00: \$64,874 Total: \$170,883  
*Prin. Invest.:* K PICKERING  
*Tech. Officer:* GSFC/R W STEWART  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7345 UNIVERSITY OF MARYLAND - COLLEGE PARK 5090**  
 XTE PROPOSAL (30004) - X-RAY FLARES FROM THE ACTIVE BINARY II  
 PEG  
 06/01/1998 - 05/31/2000 FY00: \$0 Total: \$10,076  
*Prin. Invest.:* S M WHITE  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7370 UNIVERSITY OF MARYLAND - COLLEGE PARK 5091**  
 TWO UNSOLVED PROBLEMS IN SOLAR PHYSICS  
 05/06/1998 - 04/30/2000 FY00: \$0 Total: \$41,922  
*Prin. Invest.:* M KUNDU  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7419 UNIVERSITY OF MARYLAND - COLLEGE PARK 5092**  
 SIMULATION OF RADIOACTIVE TRACERS TO EVALUATE TRANSPORT AND  
 SCAVENGING IN THE GMI CORE MODEL  
 06/29/1998 - 04/30/2001 FY00: \$52,719 Total: \$162,321  
*Prin. Invest.:* D CONSIDINE  
*Tech. Officer:* GSFC/R W STEWART  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7425 UNIVERSITY OF MARYLAND - COLLEGE PARK 5093**  
 FUSION OF AVHRR AND SEAWIFS DATA  
 05/26/1998 - 10/31/2000 FY00: \$0 Total: \$168,774  
*Prin. Invest.:* S D PRINCE  
*Tech. Officer:* GSFC/C J TUCKER  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7536 UNIVERSITY OF MARYLAND - COLLEGE PARK 5094**  
 BOREAL ECOSYSTEM-ATMOSPHERE INFORMATION SYSTEMS DESIGN  
 AND OPERATION  
 06/18/1998 - 12/31/1999 FY00: \$0 Total: \$89,926  
*Prin. Invest.:* K HUMMERICK  
*Tech. Officer:* GSFC/F HALL  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7567 UNIVERSITY OF MARYLAND - COLLEGE PARK 5095**  
 INTERACTION OF LAND SURFACE COVER/CHARACTERISTICS AND  
 SURFACE HYDROCLIMATOLOGY AT SEASONAL/INTERANNU  
 07/09/1998 - 01/14/2000 FY00: -\$229,127 Total: \$90,873  
*Prin. Invest.:* Y XUE  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7587 UNIVERSITY OF MARYLAND - COLLEGE PARK 5096**  
 TERRESTRIAL ENVIRONMENTAL VARIABLES DERIVED FROM E OS PLAT-  
 FORM  
 06/29/1998 - 01/31/2001 FY00: \$45,009 Total: \$241,817  
*Prin. Invest.:* S N GOWARD  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7628 UNIVERSITY OF MARYLAND - COLLEGE PARK 5097**  
 LEARNING CONTROLLERS FOR ENHANCED AUTONOMY OF SPAC E  
 ROBOTS  
 08/24/1998 - 04/30/2000 FY00: \$0 Total: \$64,930  
*Prin. Invest.:* D SANNER  
*Tech. Officer:* HQ/D LAVERY  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7634 UNIVERSITY OF MARYLAND - COLLEGE PARK 5098**  
 ISOTOPIC AND GEOCHEMICAL INVESTIGATIONS OF METEORITES  
 09/10/1998 - 07/31/2001 FY00: \$69,000 Total: \$209,000  
*Prin. Invest.:* R J WALKER  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7678 UNIVERSITY OF MARYLAND - COLLEGE PARK 5099**  
 MISSION OPERATIONS AND DATA ANALYSIS OF THE CELIAS EXPER-  
 IMENTON SOHO PRIOR GRANT 2754  
 09/17/1998 - 04/30/2001 FY00: \$0 Total: \$400,000  
*Prin. Invest.:* F IPAVICH  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7762 UNIVERSITY OF MARYLAND - COLLEGE PARK 5100**  
 WIND/SOHO GUEST OBSERVER PROGRAM FOR STUDY OF SOLAR ENER-  
 GETIC PARTICLES AND GALACTIC  
 12/24/1998 - 09/30/2000 FY00: \$83,500 Total: \$163,900  
*Prin. Invest.:* F B McDONALD  
*Tech. Officer:* GSFC/J LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7805 UNIVERSITY OF MARYLAND - COLLEGE PARK 5101**  
 THE ASSIMILATION OF SATELLITE DATA INTO GLOBAL MHD SIMULATIONS  
 (SEC GI PROGRAM)  
 11/06/1998 - 08/31/1999 FY00: -\$8,275 Total: \$11,725  
*Prin. Invest.:* R E LOPEZ  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS

**NAG 5 7832 UNIVERSITY OF MARYLAND - COLLEGE PARK 5102**  
 "PARTICIPATION IN THE "GLOBE" (GLOAL LEARNING AND OBSERVATION  
 TOBENEFIT THE ENVIRONMENT) PRO  
 11/27/1998 - 06/30/2000 FY00: \$0 Total: \$137,341  
*Prin. Invest.:* J HASKETT  
*Tech. Officer:* GSFC/E R LEVINE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7842 UNIVERSITY OF MARYLAND - COLLEGE PARK 5103**  
 OBSERVING SYSTEM SIMULATION EXPERIMENTS AND 4DDA A ASSOCIATED  
 WITH CAMEX3  
 11/27/1998 - 11/30/2000 FY00: \$120,000 Total: \$270,000  
*Prin. Invest.:* D ZHANG  
*Tech. Officer:* GSFC/A F NEGRI  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7850 UNIVERSITY OF MARYLAND - COLLEGE PARK 5104**  
 CRITICAL MHD STUDIES OF SUN-EARTH CONNECTION  
 11/30/1998 - 11/30/1999 FY00: \$0 Total: \$90,000  
*Prin. Invest.:* K PAPADOPOULOS  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS

**NAG 5 7879 UNIVERSITY OF MARYLAND - COLLEGE PARK 5105**  
 RELATIVISTIC ASTROPHYSICS IN BLACK HOLE AND LOW-MA SS NEUTRON  
 STAR X-RAY BINARIES - LTSA98  
 12/02/1998 - 11/14/1999 FY00: -\$22,197 Total: \$12,551  
*Prin. Invest.:* W CHEN  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7901 UNIVERSITY OF MARYLAND - COLLEGE PARK 5106**  
 EIT STUDIES OF LARGE SCALE STRUCTURES IN THE SOLAR CORONA  
 12/02/1998 - 12/14/2000 FY00: \$70,473 Total: \$138,357  
*Prin. Invest.:* M R KUNDU  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7908 UNIVERSITY OF MARYLAND - COLLEGE PARK 5107**  
 MULTIWAVELENGTH PHOTOMETRIC IMAGING OF X-RAY AND E UV EMIS-  
 SION FROM COMET P/TEMPEL-TUTTLE 1998 \_\_ - A  
 12/10/1998 - 11/01/1999 FY00: -\$23,741 Total: \$6,259  
*Prin. Invest.:* C M LISSE, NONE  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7948 UNIVERSITY OF MARYLAND - COLLEGE PARK 5108**  
 GEOLOGICAL AND METEOROLOGICAL ASPECTS OF DETERMINATION OF  
 GLOBAL SEA LEVEL RISE  
 12/17/1998 - 12/31/1999 FY00: \$0 Total: \$58,904  
*Prin. Invest.:* B C DOUGLAS  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7958 UNIVERSITY OF MARYLAND - COLLEGE PARK 5109**  
 DYNAMICS OF DUST IN THE JOVIAN SYSTEM  
 01/27/1999 - 02/28/2001 FY00: \$50,302 Total: \$99,321  
*Prin. Invest.:* D P HAMILTON  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8027 UNIVERSITY OF MARYLAND - COLLEGE PARK 5110**  
 SCIENCE EDUCATIONAL INSTRUCTIONAL MATERIALS FOR IS TP/  
 SOLARMAX  
 01/12/1999 - 08/31/1999 FY00: -\$53,228 Total: \$1,625  
*Prin. Invest.:* R E LOPEZ  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS

**NAG 5 8029 UNIVERSITY OF MARYLAND - COLLEGE PARK 5111**  
 THIS GRANT WILL CONDUCT BASIC SCIENTIFIC RESEARCH IN THE  
 PHYSICS OF SOLAR FLARES; INCREASING  
 01/15/1999 - 04/01/2000 FY00: \$0 Total: \$110,658  
*Prin. Invest.:* E J SCHMAHL  
*Tech. Officer:* GSFC/C J CRANNELL  
*CASE Category:* 13 - PHYSICS

**NAG 5 8033 UNIVERSITY OF MARYLAND - COLLEGE PARK 5112**  
 SUPPORT OF DATA ACCESS FOR THE IMP-8 UMD EXPERIMENT  
 01/19/1999 - 01/31/2001 FY00: \$6,000 Total: \$11,307  
*Prin. Invest.:* F IPAVICH  
*Tech. Officer:* GSFC/J KING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8079 UNIVERSITY OF MARYLAND - COLLEGE PARK 5113**  
 A PROPOSAL TO ASSIST IN THE INTERPRETATION OF DATA FROM THE  
 COSMIC RAY ISOTOPE SPECTROMETER EXPERIMENT  
 01/14/1999 - 12/31/2000 FY00: \$46,800 Total: \$91,800  
*Prin. Invest.:* D LUKASIAK  
*Tech. Officer:* GSFC/D C LING  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8105 UNIVERSITY OF MARYLAND - COLLEGE PARK 5114**  
 GEOMORPHOLOGICAL ANALYSIS OF TERRAINS ON EARTH AND  
 MARSPOD: 2/1/99-1/31/00  
 02/19/1999 - 01/31/2001 FY00: \$52,622 Total: \$107,623  
*Prin. Invest.:* R DUBAYAH  
*Tech. Officer:* GSFC/J B GARVIN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 8121 UNIVERSITY OF MARYLAND - COLLEGE PARK 5115**  
 GENERATION OF A CONSISTENT TERRESTRIAL NET PRIMARY PRODUCTION  
 DATA SET: PART II  
 01/26/1999 - 12/31/2000 FY00: \$114,386 Total: \$178,386  
*Prin. Invest.:* S D PRINCE  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8177 UNIVERSITY OF MARYLAND - COLLEGE PARK 5116**  
 DISTRIBUTION OF JRS SPECIAL ISSUE ON GLOBAL AND REGIONAL LAND  
 COVER CHARACTERIZATION FROM REMOTE SENSING  
 02/09/1999 - 12/31/2000 FY00: \$0 Total: \$15,037  
*Prin. Invest.:* R DEFRIES  
*Tech. Officer:* GSFC/A C JANETOS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8179 UNIVERSITY OF MARYLAND - COLLEGE PARK 5117**  
 INTERNATIONAL FORUM ON BRDF  
 02/12/1999 - 12/30/2000 FY00: \$0 Total: \$14,993  
*Prin. Invest.:* S LIANG  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8189 UNIVERSITY OF MARYLAND - COLLEGE PARK 5118**  
 OCCULTATION SYSTEM UPGRADE  
 03/08/1999 - 03/14/2001 FY00: \$0 Total: \$128,231  
*Prin. Invest.:* M F A'HEARN  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8192 UNIVERSITY OF MARYLAND - COLLEGE PARK 5119**  
 RESEARCH IN SOLAR RADIO ASTRONOMY AT SHORT WAVELENGTHS  
 05/13/1999 - 05/31/2001 FY00: \$140,921 Total: \$159,959  
*Prin. Invest.:* M R KUNDU, NONE  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8207 UNIVERSITY OF MARYLAND - COLLEGE PARK 5120**  
 DISCOVERY MISSION SELECTION - DEEP IMPACT, A098-OS S-04  
 02/24/1999 - 02/29/2000 FY00: \$0 Total: \$70,000  
*Prin. Invest.:* D A'HEARN  
*Tech. Officer:* GSFC/M NOLAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8225 UNIVERSITY OF MARYLAND - COLLEGE PARK 5121**  
 USE OF TWO-DIMENSIONAL MODELS IN SUPPORT OF THE ATMOSPHERIC  
 EFFECTS OF STRATOSPHERIC AIRCRAFT PROJECT  
 02/10/1999 - 02/14/2000 FY00: \$0 Total: \$18,762  
*Prin. Invest.:* D B CONSIDINE  
*Tech. Officer:* GSFC/R W STEWART  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8230 UNIVERSITY OF MARYLAND - COLLEGE PARK 5122**  
 COMPARISON OF THE RADIATIVE AND PHYSIOLOGICAL EFFECTS OF  
 DOUBLED CO2 ON THE GLOBAL CLIMATE AND DEVELOPMENT  
 03/01/1999 - 11/30/2000 FY00: \$42,231 Total: \$151,808  
*Prin. Invest.:* L BOUNOUA, NONE  
*Tech. Officer:* GSFC/J G COLLATZ  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8263 UNIVERSITY OF MARYLAND - COLLEGE PARK 5123**  
 SALINITY EFFECTS ON INTRA-SEASONAL TO INTERANNUAL VARIABILITY  
 OF COUPLED CLIMATE PREDICTION MODEL  
 02/22/1999 - 12/31/2000 FY00: \$143,331 Total: \$280,377  
*Prin. Invest.:* R MURTUGUDDE  
*Tech. Officer:* GSFC/E LINDSTROM  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8289 UNIVERSITY OF MARYLAND - COLLEGE PARK 5124**  
 DYNAMICAL DIAGNOSIS OF THE NSIPP ATMOSPHERIC AND COUPLED  
 MODEL SIMULATIONS  
 02/24/1999 - 02/28/2001 FY00: \$101,935 Total: \$200,370  
*Prin. Invest.:* S NIGAM  
*Tech. Officer:* GSFC/M RIENECKER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8386 UNIVERSITY OF MARYLAND - COLLEGE PARK 5125**  
 SURFACE RADIATION BUDGETS FOR LBA  
 03/08/1999 - 02/28/2001 FY00: \$96,588 Total: \$189,588  
*Prin. Invest.:* R T PINKER  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER



**NAG 5 8375 UNIVERSITY OF MARYLAND - COLLEGE PARK 5126**  
 DEMONSTRATE THE IMPORTANCE OF THE RAPID PROTOTYPING OF  
 MICROMECHANICAL SYSTEMS USING ION BEAM MILL  
 03/03/1999 - 03/15/2000 FY00: \$0 Total: \$29,498  
 Prin. Invest.: J ORLOFF  
 Tech. Officer: GSFC/H MOSELEY  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 8386 UNIVERSITY OF MARYLAND - COLLEGE PARK 5127**  
 INFLUENCE OF LAND SURFACE PROCESSES/LAND COVER CHANGES IN  
 AMAZONIAN REGIONAL HYDROMETEOROLOGY  
 03/03/1999 - 01/14/2000 FY00: -\$40,954 Total: \$53,574  
 Prin. Invest.: Y XUE  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8398 UNIVERSITY OF MARYLAND - COLLEGE PARK 5128**  
 CONDUCT RESEARCH IN RAREFIED GAS DYNAMICS TO SUPPORT THE  
 DEVELOPMENT OF NASA'S GLOBAL ELECTRODYNAMICS  
 05/10/1999 - 05/14/2001 FY00: \$38,000 Total: \$113,000  
 Prin. Invest.: D J LEWIS  
 Tech. Officer: GSFC/J FIORA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8411 UNIVERSITY OF MARYLAND - COLLEGE PARK 5129**  
 ISTEP SOLAR MAX  
 03/16/1999 - 02/28/2001 FY00: \$250,000 Total: \$640,000  
 Prin. Invest.: K PAPADOPOULOS  
 Tech. Officer: GSFC/S CURTIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8459 UNIVERSITY OF MARYLAND - COLLEGE PARK 5130**  
 EQ-S MISSIONS OPERATIONS AND DATA ANALYSIS  
 04/19/1999 - 04/14/2001 FY00: \$42,750 Total: \$88,830  
 Prin. Invest.: J DRAKE  
 Tech. Officer: GSFC/M HESSE  
 CASE Category: 13 - PHYSICS

**NAG 5 8528 UNIVERSITY OF MARYLAND - COLLEGE PARK 5131**  
 ENSEMBLE OCEAN-ATMOSPHERE PERTURBATIONS WITH GROWING  
 ENSO USING BREEDING  
 05/26/1999 - 05/31/2001 FY00: \$194,706 Total: \$389,412  
 Prin. Invest.: E KALNAY  
 Tech. Officer: GSFC/M RIENECKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8575 UNIVERSITY OF MARYLAND - COLLEGE PARK 5132**  
 DEVELOPMENT OF PROCEDURES FOR SELECTING LANDSAT SCENES FOR  
 EARTH SYSTEM SCIENCE  
 06/07/1999 - 12/31/2000 FY00: \$0 Total: \$69,968  
 Prin. Invest.: J TOWNSHEND  
 Tech. Officer: GSFC/C J TUCKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8583 UNIVERSITY OF MARYLAND - COLLEGE PARK 5133**  
 PLUME IMPINGEMENT MODELING FOR SPACECRAFT DESIGN  
 06/08/1999 - 06/14/2001 FY00: \$0 Total: \$50,000  
 Prin. Invest.: M J LEWIS  
 Tech. Officer: GSFC/M RHEE  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 5 8595 UNIVERSITY OF MARYLAND - COLLEGE PARK 5134**  
 PHYSICAL & BIOGEOCHEMICAL PROCESSES WITH THE INDIA OCEAN: A  
 STUDY OF ANNUAL & INTERANNUAL VARIABILITY  
 06/07/1999 - 11/30/2001 FY00: \$135,244 Total: \$272,923  
 Prin. Invest.: R MURTUGUDDE  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8596 UNIVERSITY OF MARYLAND - COLLEGE PARK 5135**  
 YEAR 1 FUNDING FROM HPCC/ESS PROJECT FOR PROPOSAL TITLE: AN  
 ADAPTIVE MHD CODE BASED ON CHARACTERIZATION  
 06/11/1999 - 06/14/2001 FY00: \$62,073 Total: \$102,707  
 Prin. Invest.: A DEANE  
 Tech. Officer: GSFC/J R FISCHER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8613 UNIVERSITY OF MARYLAND - COLLEGE PARK 5136**  
 CLIMATE CHANGE, EXTREME COASTAL WATER LEVEL EVENTS AND  
 COASTAL EROSION  
 06/11/1999 - 12/31/2000 FY00: \$0 Total: \$72,761  
 Prin. Invest.: B DOUGLAS  
 Tech. Officer: GSFC/E PAYLOR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8621 UNIVERSITY OF MARYLAND - COLLEGE PARK 5137**  
 ANALYSIS OF DATA FROM THE SWE EXPERIMENT ON THE WIND SPACE-  
 CRAFT  
 06/16/1999 - 09/30/2000 FY00: \$0 Total: \$31,144  
 Prin. Invest.: M COPLAN, NONE  
 Tech. Officer: GSFC/K OGILVIE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8678 UNIVERSITY OF MARYLAND - COLLEGE PARK 5138**  
 ROLE OF GRAY SQUIRRELS IN MAINTAINING LIFE CYCLE  
 07/09/1999 - 08/31/2001 FY00: \$0 Total: \$18,885  
 Prin. Invest.: L W ADAMS  
 Tech. Officer: GSFC/D E WALTER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 8692 UNIVERSITY OF MARYLAND - COLLEGE PARK 5139**  
 MAPPING THE RISING PHASE OF X-RAY OUTBURSTS IN SOFT X-RAY  
 TRANSIENTS  
 07/21/1999 - 07/31/2000 FY00: \$0 Total: \$1,750  
 Prin. Invest.: W CHEN  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8711 UNIVERSITY OF MARYLAND - COLLEGE PARK 5140**  
 DEVELOPMENT OF A HIGH SPEED, HIGH FUNCTIONALITY, RELIABLE FIBER  
 OPTICS SWITCH MODULE BASED ON RESONANCE  
 07/21/1999 - 09/30/2000 FY00: \$0 Total: \$45,000  
 Prin. Invest.: D DAGENAIS  
 Tech. Officer: GSFC/H C SHAW  
 CASE Category: 45 - ELECTRICAL ENGR

## MARYLAND

## NASA'S UNIVERSITY PROGRAM

**NAG 5 8764 UNIVERSITY OF MARYLAND - COLLEGE PARK 5141**  
 MODELS & ALGORITHMS FOR FOREST DYNAMIC STUDIES IN SIBERIA &  
 NORTHEASTERN CHINA USING MULTI-SATELLITE  
 09/10/1999 - 11/30/2000 FY00: \$9,466 Total: \$108,789  
*Prin. Invest.:* G SUN  
*Tech. Officer:* GSFC/K J RANSON  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8789 UNIVERSITY OF MARYLAND - COLLEGE PARK 5142**  
 CENTRAL AFRICA REGIONAL PROGRAM FOR THE ENVIRONMEN T  
 09/03/1999 - 08/31/2000 FY00: \$0 Total: \$76,729  
*Prin. Invest.:* N T LAPORTE-GOETZ  
*Tech. Officer:* GSFC/C J TUCKER  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8809 UNIVERSITY OF MARYLAND - COLLEGE PARK 5143**  
 COMBINING HYDROLOGICAL MODELING AND REMOTE SENSING FOR  
 APPLIED MACROSCALE WATER AND ENERGY BALAN  
 09/08/1999 - 09/30/2000 FY00: \$0 Total: \$66,163  
*Prin. Invest.:* R DUBAYAH  
*Tech. Officer:* GSFC/E WOOD  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8833 UNIVERSITY OF MARYLAND - COLLEGE PARK 5144**  
 THE REDSHIFT DEPENDENCE OF THE INTERACTION- ACTIVITY CONNEC-  
 TION AMONG ULTRALUMINOUS STARBURST  
 09/12/2000 - 09/14/2001 FY00: \$9,107 Total: \$9,107  
*Prin. Invest.:* P J TEUBEN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8842 UNIVERSITY OF MARYLAND - COLLEGE PARK 5145**  
 AWARD FUNDING TO THE UNIVERSITY OF MARYLAND FOR PROPOSAL  
 ENTITLED "OCTOBER ASTROPHYSICS CONFER  
 09/24/1999 - 09/30/2001 FY00: \$25,000 Total: \$50,000  
*Prin. Invest.:* J D TRASCO  
*Tech. Officer:* GSFC/D NORTON  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8849 UNIVERSITY OF MARYLAND - COLLEGE PARK 5146**  
 SOLAR FLARE PHYSICS  
 12/16/1999 - 12/31/2000 FY00: \$118,283 Total: \$118,283  
*Prin. Invest.:* E J SCHMAHL  
*Tech. Officer:* GSFC/B R DENNIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8850 UNIVERSITY OF MARYLAND - COLLEGE PARK 5147**  
 FOCUSED ION BEAM EQUIPMENT UPGRADE.  
 12/21/1999 - 03/31/2000 FY00: \$36,125 Total: \$36,125  
*Prin. Invest.:* J ORLOFF  
*Tech. Officer:* GSFC/H MOSELEY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8877 UNIVERSITY OF MARYLAND - COLLEGE PARK 5148**  
 SOLAR CYCLE DYNAMICS STUDIES WITH SAMPEX  
 11/24/1999 - 11/30/2000 FY00: \$794,000 Total: \$794,000  
*Prin. Invest.:* G MASON  
*Tech. Officer:* GSFC/T VON ROSENVINGE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8936 UNIVERSITY OF MARYLAND - COLLEGE PARK 5149**  
 AN INVESTIGATION OF TROPICAL UPPER TROPOSPHERIC HUMIDITY  
 01/18/2000 - 11/30/2000 FY00: \$147,038 Total: \$147,038  
*Prin. Invest.:* A DESSLER  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9044 UNIVERSITY OF MARYLAND - COLLEGE PARK 5150**  
 MULTIDIMENSIONAL, NON-LTE RADIATION TRANSPORT IN ASTROPHYS-  
 ICAL  
 02/25/2000 - 04/30/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* T LANZ  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9075 UNIVERSITY OF MARYLAND - COLLEGE PARK 5151**  
 ULTRA-WIDEBAND MICROWAVE SPECTROMETERS FOR HETEROD YNE  
 SPECTROSCOPY  
 02/16/2000 - 02/28/2001 FY00: \$128,000 Total: \$128,000  
*Prin. Invest.:* A HARRIS  
*Tech. Officer:* GSFC/G STRINGFELLOW  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9108 UNIVERSITY OF MARYLAND - COLLEGE PARK 5152**  
 MAGNETIC RECONNECTION & ASSOCIATED WAVE & PARTICLE SIGNA-  
 TURES IN COLLISIONLESS PLASMA  
 02/23/2000 - 02/28/2003 FY00: \$84,800 Total: \$84,800  
*Prin. Invest.:* J F DRAKE  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9150 UNIVERSITY OF MARYLAND - COLLEGE PARK 5153**  
 CENTER FOR SATELLITE AND HYBRID COMMUNICATION NETWORKS, NASA  
 COMMERCIAL SPACE CENTER  
 03/03/2000 - 03/01/2001 FY00: \$1,000,000 Total: \$1,000,000  
*Prin. Invest.:* J BARAS  
*Tech. Officer:* GSFC/R DEPAULA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9151 UNIVERSITY OF MARYLAND - COLLEGE PARK 5154**  
 UNDERGRADUATE AND GRADUATE STUDENT TRAINING IN AERONAUTICS  
 RESEARCH (STAR)  
 03/02/2000 - 02/28/2001 FY00: \$26,798 Total: \$26,798  
*Prin. Invest.:* M GAVRILAS  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 41 - AERONAUTICAL ENGRN

**NAG 5 9167 UNIVERSITY OF MARYLAND - COLLEGE PARK 5155**  
 EVOLUTIONARY MODELS OF COLD, MAGNETIZED, INTERSTEL LAR  
 CLOUDS (ATP 99)  
 03/15/2000 - 03/14/2001 FY00: \$82,973 Total: \$82,973  
*Prin. Invest.:* E OSTRICKER  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

## NASA'S UNIVERSITY PROGRAM

## MARYLAND

**NAG 5 9228 UNIVERSITY OF MARYLAND - COLLEGE PARK 5156**  
 ESTABLISHMENT OF CENTER FOR ADVANCED INFORMATION  
 TECHNOLOGY  
 03/20/2000 - 02/28/2001 FY00: \$2,000,000 Total: \$2,000,000  
 Prin. Invest.: G L GEOFFROY  
 Tech. Officer: GSFC/M PHELPS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9271 UNIVERSITY OF MARYLAND - COLLEGE PARK 5157**  
 PDRS IN GALAXIES: FROM THE LOCAL UNIVERSE TO HIGH Z STARBURSTS  
 (LTSA 99)  
 03/15/2000 - 03/14/2001 FY00: \$46,694 Total: \$46,694  
 Prin. Invest.: M WOLFIRE  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9282 UNIVERSITY OF MARYLAND - COLLEGE PARK 5158**  
 MISSION OPERATIONS & DATA ANALYSIS FOR THE CELIAS/ MT OF EXPERI-  
 MENT  
 04/06/2000 - 04/30/2001 FY00: \$400,000 Total: \$400,000  
 Prin. Invest.: F IPAVICH  
 Tech. Officer: GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9319 UNIVERSITY OF MARYLAND - COLLEGE PARK 5159**  
 AN INTEGRATED FOREST MONITORING SYSTEM FOR CENTRAL ASIA  
 03/22/2000 - 03/31/2003 FY00: \$81,496 Total: \$81,496  
 Prin. Invest.: N LAPORTE  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9329 UNIVERSITY OF MARYLAND - COLLEGE PARK 5160**  
 INTER-ANNUAL LAND SURFACE VARIATION  
 03/24/2000 - 04/30/2001 FY00: \$160,538 Total: \$160,538  
 Prin. Invest.: S D PRINCE  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9337 UNIVERSITY OF MARYLAND - COLLEGE PARK 5161**  
 IMPROVEMENTS IN LANDSAT PATHFINDER METHODS FOR MONITORING  
 TROPICAL DEFORESTATION & THEIR EXTENSION  
 03/27/2000 - 04/30/2001 FY00: \$172,093 Total: \$172,093  
 Prin. Invest.: J R TOWNSHEND  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9338 UNIVERSITY OF MARYLAND - COLLEGE PARK 5162**  
 MONITORING FOREST DYNAMICS IN NORTHEASTEN CHINA IN SUPPORT  
 OF GOFCC  
 03/31/2000 - 04/30/2001 FY00: \$70,700 Total: \$70,700  
 Prin. Invest.: G SUN  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9339 UNIVERSITY OF MARYLAND - COLLEGE PARK 5163**  
 TOWARDS METHODOLOGIES FOR GLOBAL MONITORING OF FOREST  
 COVER CHARACTERISTICS WITH COARSE  
 03/31/2000 - 04/30/2001 FY00: \$77,300 Total: \$77,300  
 Prin. Invest.: R DEFRIES  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9411 UNIVERSITY OF MARYLAND - COLLEGE PARK 5164**  
 UNDERSTANDING WATER, ENERGY AND CLIMATE: A GEWEX GLOBAL  
 WATER & ENERGY BUDGET PATHFINDER DATA SET  
 04/10/2000 - 04/30/2001 FY00: \$29,800 Total: \$29,800  
 Prin. Invest.: R DUBAYAH  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9440 UNIVERSITY OF MARYLAND - COLLEGE PARK 5165**  
 CONTRIBUTION OF EMISSIONS FROM BOREAL FOREST FIRES  
 04/13/2000 - 04/30/2001 FY00: \$176,883 Total: \$176,883  
 Prin. Invest.: K KASISCHKE  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9447 UNIVERSITY OF MARYLAND - COLLEGE PARK 5166**  
 TERRESTRIAL HYDROLOGY & CLIMATE STUDIES USING EOS- ERA DATA  
 04/12/2000 - 04/14/2003 FY00: \$61,494 Total: \$61,494  
 Prin. Invest.: R DUBAYAH  
 Tech. Officer: GSFC/R DUBAYAH  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9481 UNIVERSITY OF MARYLAND - COLLEGE PARK 5167**  
 WORKSHOP: DESIGN & IMPLEMENTATION PLAN FOR A HARMFUL ALGAL  
 BLOOMS OBSERVING SYSTEM (HABSOS), A  
 04/19/2000 - 04/30/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: T MALONE  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9524 UNIVERSITY OF MARYLAND - COLLEGE PARK 5168**  
 A STUDY OF INTERANNUAL AND DECADEAL VARIABILITY IN THE PACIFIC  
 04/26/2000 - 05/31/2001 FY00: \$43,526 Total: \$43,526  
 Prin. Invest.: L WANG  
 Tech. Officer: GSFC/E LINSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9560 UNIVERSITY OF MARYLAND - COLLEGE PARK 5169**  
 2000 ASEE-NASA SUMMER FACULTY FELLOWSHIP PROGRAM (AERO-  
 NAUTICS AND SPACE RESEARCH)  
 05/09/2000 - 05/14/2001 FY00: \$305,000 Total: \$305,000  
 Prin. Invest.: M GAVRILAS  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9575 UNIVERSITY OF MARYLAND - COLLEGE PARK 5170**  
 THE PHYSICAL & CHEMICAL STRUCTURE OF CIRCUMSTELLAR DISKS &  
 ENVELOPES  
 05/10/2000 - 04/30/2001 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: L MUNDY  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 13 - PHYSICS

**NAG 5 9620 UNIVERSITY OF MARYLAND - COLLEGE PARK 5171**  
 A GLOBAL NETWORK OF SITES FOR ASSESSING BIOGEOCHEMICAL &  
 BIOPHYSICAL CONSEQUENCES OF LAND COVER DIS  
 05/18/2000 - 05/14/2002 FY00: \$90,000 Total: \$90,000  
 Prin. Invest.: R DEFRIES  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**MARYLAND**

**NASA'S UNIVERSITY PROGRAM**

**NAG 5 9621 UNIVERSITY OF MARYLAND - COLLEGE PARK 5172**  
A FEDERATION INTEROPERABILITY SUBSTRATE USING MOCHA  
05/19/2000 - 05/31/2001 FY00: \$40,000 Total: \$40,000  
Prin. Invest.: N ROUSSOPOULOS  
Tech. Officer: GSFC/C CHEUNG  
CASE Category: 11 - ASTRONOMY

**NAG 5 9632 UNIVERSITY OF MARYLAND - COLLEGE PARK 5173**  
INVESTIGATIONS OF THE TROPICAL TROPOPAUSE REGION  
06/07/2000 - 05/31/2001 FY00: \$99,483 Total: \$99,483  
Prin. Invest.: A DESSLER  
Tech. Officer: GSFC/P DECOLA  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9634 UNIVERSITY OF MARYLAND - COLLEGE PARK 5174**  
IMPROVED GLOBAL SCALE MODELS FOR SURFACE RADIATION BUDGETS  
05/26/2000 - 04/30/2001 FY00: \$74,000 Total: \$74,000  
Prin. Invest.: R T PINKER  
Tech. Officer: GSFC/R CURAN  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9644 UNIVERSITY OF MARYLAND - COLLEGE PARK 5175**  
SUPPORT FOR THE GOFB BOREAL FOREST WORKSHOP, NASA SIBERIAN  
NETWORK AND EWG BOREAL FOREST PROJECT AC  
06/01/2000 - 05/31/2001 FY00: \$50,583 Total: \$50,583  
Prin. Invest.: E S KASISCHKE  
Tech. Officer: GSFC/G GUTMAN  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9672 UNIVERSITY OF MARYLAND - COLLEGE PARK 5176**  
TROPOSPHERIC CONVECTION & STRATOSPHERE-TROPOSPHERE  
EXCHANGE: EFFECTS ON PHOTOCHEMISTRY, AEROSOLS  
06/12/2000 - 05/31/2001 FY00: \$175,770 Total: \$175,770  
Prin. Invest.: K E PICKERING  
Tech. Officer: GSFC/P DECOLA  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9674 UNIVERSITY OF MARYLAND - COLLEGE PARK 5177**  
ADVANCING GLACIOLOGICAL APPLICATIONS OF REMOTE SENSING WITH  
EO-1  
06/09/2000 - 06/14/2001 FY00: \$17,389 Total: \$17,389  
Prin. Invest.: M FAHNSTOCK  
Tech. Officer: GSFC/R BINDSCHADLER  
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9750 UNIVERSITY OF MARYLAND - COLLEGE PARK 5178**  
"WIDE-FIELD IMAGING INTERFEROMETRY"  
07/20/2000 - 07/31/2001 FY00: \$14,940 Total: \$14,940  
Prin. Invest.: L G MUNDY  
Tech. Officer: GSFC/D LEISAWITZ  
CASE Category: 11 - ASTRONOMY

**NAG 5 9755 UNIVERSITY OF MARYLAND - COLLEGE PARK 5179**  
NEW ISTP SOLAR MAX GRANT: LFM IONOSPHERIC MODULE AT SOLAR  
MAXIMUM  
06/28/2000 - 06/30/2001 FY00: \$50,000 Total: \$50,000  
Prin. Invest.: K PAPADOPOULOS  
Tech. Officer: GSFC/S CURTIS  
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9756 UNIVERSITY OF MARYLAND - COLLEGE PARK 5180**  
PERIODIC, QUASI-PERIODIC, AND BURSTING BEHAVIOR OF NEUTRON  
STAR X-RAY SOURCES  
06/28/2000 - 06/30/2001 FY00: \$40,020 Total: \$40,020  
Prin. Invest.: M MILLER  
Tech. Officer: GSFC/R J OLIVERSEN  
CASE Category: 11 - ASTRONOMY

**NAG 5 9761 UNIVERSITY OF MARYLAND - COLLEGE PARK 5181**  
RESEARCH IN SUPPORT OF THE COMMUNITY COORDINATED MODELING  
CENTER  
07/06/2000 - 06/30/2001 FY00: \$84,444 Total: \$84,444  
Prin. Invest.: A DEANE  
Tech. Officer: GSFC/M HESSE  
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9793 UNIVERSITY OF MARYLAND - COLLEGE PARK 5182**  
SUPRATHERMAL THROUGH ENERGETIC PARTICLE DETECTOR ( STEP)  
SUBSYSTEM OF THEEPACT EXPERIMENT ON THE WIN  
07/27/2000 - 07/31/2001 FY00: \$62,000 Total: \$62,000  
Prin. Invest.: G M MASON, NONE  
Tech. Officer: GSFC/T VONROSENGINGE  
CASE Category: 11 - ASTRONOMY

**NAG 5 9809 UNIVERSITY OF MARYLAND - COLLEGE PARK 5183**  
STUDY OF LAND-ATMOSPHERE INTERACTIONS USING SATEL- LITE DATA  
ASSIMILATION  
07/18/2000 - 07/31/2001 FY00: \$40,022 Total: \$40,022  
Prin. Invest.: R DUBAYAH  
Tech. Officer: GSFC/P R HOUSER  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9827 UNIVERSITY OF MARYLAND - COLLEGE PARK 5184**  
VARIABILITY ASSESSMENT OF TMI SNAPSHOTS & QUALITY CONTROLLING  
N-SENSOR DATA.  
08/23/2000 - 08/31/2001 FY00: \$30,000 Total: \$30,000  
Prin. Invest.: B KEDEM  
Tech. Officer: GSFC/R J LAWRENCE  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9890 UNIVERSITY OF MARYLAND - COLLEGE PARK 5185**  
RAREFIED FLOW AERODYNAMICS FOR STABILITY & CONTROL OF FORMA-  
TION-FLYINGSATELLITES  
08/23/2000 - 08/31/2001 FY00: \$75,000 Total: \$75,000  
Prin. Invest.: M J LEWIS  
Tech. Officer: GSFC/M CONCHA  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9892 UNIVERSITY OF MARYLAND - COLLEGE PARK 5186**  
NASA-CENTRAL AFRICAN REGIONAL PROGRAM FOR THE ENVIRONMENT  
(CARPE) ACTIVITY  
08/24/2000 - 08/31/2001 FY00: \$80,000 Total: \$80,000  
Prin. Invest.: C O JUSTICE  
Tech. Officer: GSFC/C J TUCKER  
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9893 UNIVERSITY OF MARYLAND - COLLEGE PARK 5187**  
 CARPE FOREST COVER & INFORMATION SYSTEM - REVISED  
 08/29/2000 - 08/31/2001 FY00: \$44,365 Total: \$44,365  
 Prin. Invest.: C O JUSTICE  
 Tech. Officer: GSFC/C J TUCKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9916 UNIVERSITY OF MARYLAND - COLLEGE PARK 5188**  
 REPROCESSING OF GOES NOAA/NESDIS SURFACE RADIATION BUDGET  
 PRODUCTS FOR GCIP  
 09/01/2000 - 08/31/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: R T PINKER  
 Tech. Officer: GSFC/P R Houser  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9935 UNIVERSITY OF MARYLAND - COLLEGE PARK 5189**  
 X-RAY PERIODOCOTY & THE BROAD IRON K LINE IN IRAS 18325-5926  
 09/06/2000 - 09/14/2001 FY00: \$10,500 Total: \$10,500  
 Prin. Invest.: A J YOUNG  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9961 UNIVERSITY OF MARYLAND - COLLEGE PARK 5190**  
 PRECISION RIGID BODY CONTROL OF A SATELLITE CONSTELLATION.  
 09/20/2000 - 09/30/2001 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: E M ATKINS  
 Tech. Officer: GSFC/S HUGHES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1027 UNIVERSITY OF MARYLAND - COLLEGE PARK 5191**  
 RADIO JET STUDY  
 01/27/1994 - 09/30/2000 FY00: \$250,000 Total: \$665,000  
 Prin. Invest.: A S WILSON  
 Tech. Officer: MSFC/M E ROSENTHAL  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1440 UNIVERSITY OF MARYLAND - COLLEGE PARK 5192**  
 SEARCH FOR SPIN-MASS INTERACTION WITH A SUPER- CONDUCTING  
 DIFFERENTIAL ANGULAR ACCELEROMETER  
 02/02/1998 - 12/31/2002 FY00: \$115,000 Total: \$306,000  
 Prin. Invest.: H J PAIK, M V MOODY  
 Tech. Officer: MSFC/J W POE  
 CASE Category: 13 - PHYSICS

**NAG 9 1116 UNIVERSITY OF MARYLAND - COLLEGE PARK 5193**  
 RESEARCH IN SPACE AND TELEROBOTICS  
 06/04/1999 - 12/31/2000 FY00: \$0 Total: \$500,000  
 Prin. Invest.: D AKIN  
 Tech. Officer: JSC/C J CULBERT, JSC/C R PRICE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 1180 UNIVERSITY OF MARYLAND - COLLEGE PARK 5194**  
 GRANT DEVELOPEMENT/TESTING OF MECH COUNTERSPRESSURE SPACE  
 SUIT GLOVE  
 12/14/1999 - 10/31/2002 FY00: \$150,000 Total: \$150,000  
 Prin. Invest.: D L AKIN  
 Tech. Officer: JSC/B WOOLFORD  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 9 1920 UNIVERSITY OF MARYLAND - COLLEGE PARK 5195**  
 COMPUTER SIMULATIONS OF THE VARIABLE SPECIFIC IMPULSE MAGNETOPLASMA ROCKET  
 06/23/2000 - 12/31/2000 FY00: \$80,000 Total: \$80,000  
 Prin. Invest.: R SAGDEEV  
 Tech. Officer: JSC/F R CHANG-DIAZ  
 CASE Category: 13 - PHYSICS

**NAG13 98001 UNIVERSITY OF MARYLAND - COLLEGE PARK 5196**  
 ENHANCING EARTH SYSTEM SCIENCES USING COMMERCIAL TERRESTRIAL REMOTE SENSING SYSTEMS  
 11/03/1997 - 02/24/2001 FY00: \$212,125 Total: \$596,880  
 Prin. Invest.: S GOWARD  
 Tech. Officer: SSC/J JENNER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG13 99011 UNIVERSITY OF MARYLAND - COLLEGE PARK 5197**  
 MID ATLANTIC RESAC CONSORTIUM SAME  
 03/01/1999 - 03/01/2002 FY00: \$0 Total: \$1,730,000  
 Prin. Invest.: S D PRINCE  
 Tech. Officer: SSC/C HILL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 5 31365 UNIVERSITY OF MARYLAND - COLLEGE PARK 5198**  
 EOS EXECUTION PHASE  
 01/02/1992 - 12/14/2001 FY00: \$495,000 Total: \$3,743,390  
 Prin. Invest.: C JUSTICE  
 Tech. Officer: GSFC/H OSEROFF  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 96060 UNIVERSITY OF MARYLAND - COLLEGE PARK 5199**  
 DEFINITION PHASE ACTIVITIES ASSOCIATED WITH THE MODIS  
 INSTRUMENT OF THE EOS  
 07/25/1996 - 12/14/2001 FY00: \$402,000 Total: \$1,458,000  
 Prin. Invest.: J TOWNSHEND  
 Tech. Officer: GSFC/D TOLL  
 CASE Category: 11 - ASTRONOMY

**NAS 5 96062 UNIVERSITY OF MARYLAND - COLLEGE PARK 5200**  
 DEFINITION PHASE ACTIVITIES ASSOCIATED WITH MODIS INSTRUMENT OF  
 THE EOS  
 07/02/1996 - 12/14/2001 FY00: \$465,000 Total: \$1,693,562  
 Prin. Invest.: E VERMONTE  
 Tech. Officer: GSFC/D TOLL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 97160 UNIVERSITY OF MARYLAND - COLLEGE PARK 5201**  
 VEGETATION CANOPY LIDAR MISSION FOR ESSP  
 05/15/1997 - 05/31/2002 FY00: \$5,587,709 Total: \$27,969,252  
 Prin. Invest.: R DUBAYAH  
 Tech. Officer: GSFC/J ROBINSON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 99211 UNIVERSITY OF MARYLAND - COLLEGE PARK 5202**  
 AWARD - SAMPEX MISSION SUPPORT  
 08/27/1999 - 04/26/2001 FY00: \$90,000 Total: \$180,000  
 Prin. Invest.: W FOURNEY  
 Tech. Officer: GSFC/T STENGLE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NASW 00004 UNIVERSITY OF MARYLAND - COLLEGE PARK 5203**  
 MESSENGER DISCOVERY PROJECTS (PI'S MANAGE PROJECT ORBIT & EXPLOR PLANET MERCURY PHASE B  
 03/14/2000 - 03/31/2001 FY00: \$782,469 Total: \$782,469  
 Prin. Invest.: M F A'HEARN  
 Tech. Officer: HQ/D JARRETT  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 829 UNIVERSITY OF MARYLAND - COLLEGE PARK 5204**  
 EVALUATION OF METHODOLOGY FOR TESTING & ANALYSIS OF ADVANCED ROTORS  
 09/30/1993 - 12/31/1998 FY00: \$0 Total: \$358,273  
 Prin. Invest.: I CHOPRA, F HARRIS  
 Tech. Officer: ARC/W G WARMBRODT, ARC/F FELKER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 944 UNIVERSITY OF MARYLAND - COLLEGE PARK 5205**  
 CENTER FOR ROTORCRAFT EDUCATION & RESEARCH  
 02/23/1996 - 12/31/2000 FY00: \$724,230 Total: \$3,797,988  
 Prin. Invest.: I CHOPRA  
 Tech. Officer: ARC/Y H YU, ARC/J M DAVIS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 1058 UNIVERSITY OF MARYLAND - COLLEGE PARK 5206**  
 DUST DESTRUCTION & EMISSION IN SUPERNOVA REMNANTS  
 07/23/1998 - 07/14/1999 FY00: -\$2 Total: \$13,754  
 Prin. Invest.: L G MUNDY  
 Tech. Officer: ARC/D J HOLLENHACH  
 CASE Category: 11 - ASTRONOMY

**NCC 2 1129 UNIVERSITY OF MARYLAND - COLLEGE PARK 5207**  
 WAVE-RIDER-BASED REENTRY CONFIGURATIONS FOR THE SHARP FLIGHT EXPERIMENT  
 07/13/1999 - 12/31/2000 FY00: \$54,608 Total: \$66,608  
 Prin. Invest.: M J LEWIS  
 Tech. Officer: ARC/P KOLODZIEJ, ARC/D J RASKY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 1146 UNIVERSITY OF MARYLAND - COLLEGE PARK 5208**  
 EVALUATION OF METHODOLOGY FOR TESTING AND ANALYSIS OF ADVANCED ROTOR SYSTEMS  
 12/01/1999 - 11/30/2000 FY00: \$196,025 Total: \$196,025  
 Prin. Invest.: F HARRIS, I CHOPRA, G PRICE  
 Tech. Officer: ARC/W WARMBRODT  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5237 UNIVERSITY OF MARYLAND - COLLEGE PARK 5209**  
 INFRARED EMISSION AND THERMAL PROCESSES IN SPIRAL GALAXIES  
 08/26/1997 - 08/31/1999 FY00: -\$4 Total: \$130,000  
 Prin. Invest.: L G MUNDY, M WHOTIE  
 Tech. Officer: ARC/D J HOLLENBACH  
 CASE Category: 11 - ASTRONOMY

**NCC 2 5348 UNIVERSITY OF MARYLAND - COLLEGE PARK 5210**  
 THE EVOLUTION OF DUST IN THE MULTIPHASE INTERSTELLAR MEDIUM  
 09/01/1999 - 09/14/2001 FY00: \$14,900 Total: \$33,199  
 Prin. Invest.: M G WOLFIRE  
 Tech. Officer: ARC/D J HOLLENBACH, ARC/R E YOUNG  
 CASE Category: 11 - ASTRONOMY

**NCC 3 528 UNIVERSITY OF MARYLAND - COLLEGE PARK 5211**  
 CENTER FOR SATELLITE AND HYBRID COMMUNICATION NETWORKS  
 01/30/1997 - 01/11/2001 FY00: \$127,000 Total: \$2,430,000  
 Prin. Invest.: J S BARAS  
 Tech. Officer: GRC/J W BAGWELL, GRC/K B BHASIN  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 3 686 UNIVERSITY OF MARYLAND - COLLEGE PARK 5212**  
 STUDIES ON THE BEHAVIOR OF HIGHLY PRE-HEATED AIR F LAMES IN MICROGRAVITY  
 03/11/1999 - 01/11/2003 FY00: \$100,000 Total: \$178,500  
 Prin. Invest.: A K GUPTA  
 Tech. Officer: GRC/D STOCKER  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 753 UNIVERSITY OF MARYLAND - COLLEGE PARK 5213**  
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY  
 12/29/1999 - 05/13/2000 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: J L TORERO  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 783 UNIVERSITY OF MARYLAND - COLLEGE PARK 5214**  
 POOL BOILING HEAT TRANSFER MECHANISMS IN MICROGRAVITY AND PARTIAL GRAVITY  
 03/13/2000 - 11/30/2003 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: J KIM  
 Tech. Officer: GRC/J B MCQUILLEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 804 UNIVERSITY OF MARYLAND - COLLEGE PARK 5215**  
 FLAMMABILITY DIAGRAMS OF COMBUSTIBLE MATERIALS IN MICROGRAVITY  
 05/25/2000 - 04/30/2004 FY00: \$54,968 Total: \$54,968  
 Prin. Invest.: D L  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 5 55 UNIVERSITY OF MARYLAND - COLLEGE PARK 5216**  
 JOINT CENTER FOR EARTH SYSTEM SCIENCE  
 09/22/1993 - 09/30/1999 FY00: \$0 Total: \$5,402,993  
 Prin. Invest.: R D HUDSON  
 Tech. Officer: GSFC/F EINAUDI, GSFC/C E COTE  
 CASE Category: 11 - ASTRONOMY

**NCC 5 128 UNIVERSITY OF MARYLAND - COLLEGE PARK 5217**  
 A STUDY OF THE DEVELOPMENT OF REMOTE SENSING ALGORITHMS WITH EMPHASIS ON USING THE MODIS INSTR.  
 01/18/1996 - 02/14/2000 FY00: \$0 Total: \$960,724  
 Prin. Invest.: A J FLAG  
 Tech. Officer: GSFC/S SAMADI, GSFC/E MASUOKA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 133 UNIVERSITY OF MARYLAND - COLLEGE PARK 5218**  
 SATELLITE REMOTE SENSING METHODS FOR TERRESTRIAL BIOLOGICAL MONITORING AND MODELING  
 02/22/1996 - 09/30/1999 FY00: \$0 Total: \$610,310  
 Prin. Invest.: S GOWARD, R DUBAYAH, J G TOWNSEND  
 Tech. Officer: GSFC/D L WILLIAMS  
 CASE Category: 11 - ASTRONOMY

**NCC 5 150 UNIVERSITY OF MARYLAND - COLLEGE PARK 5219**  
 GRAND CHALLENGE APPLICATIONS  
 09/04/1996 - 06/30/2000 FY00: \$0 Total: \$962,000  
*Prin. Invest.:* P L YSTER  
*Tech. Officer:* GSFC/J R FISCHER  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NCC 5 170 UNIVERSITY OF MARYLAND - COLLEGE PARK 5220**  
 EVALUATION OF SOFTWARE ENGINEERING METHODOLOGIES  
 11/20/1996 - 04/30/2000 FY00: \$0 Total: \$1,264,800  
*Prin. Invest.:* V R BASILI, M V ZELKOWITZ  
*Tech. Officer:* GSFC/D E JAMISON  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 5 180 UNIVERSITY OF MARYLAND - COLLEGE PARK 5221**  
 THIS GRANT PROVIDES POST-DOC SUPPORT, FELLOWSHIPS, LABORATORY FOR HIGH ENERGY ASTROPHYSICS  
 02/06/1997 - 01/31/2001 FY00: \$2,135,338 Total: \$6,632,558  
*Prin. Invest.:* J D TRASCO  
*Tech. Officer:* GSFC/A HARDING  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 190 UNIVERSITY OF MARYLAND - COLLEGE PARK 5222**  
 SUPPORT OF THE EARTH SYSTEM SCIENCE INTERDISCIPLIN  
 04/04/1997 - 03/31/2002 FY00: \$0 Total: \$600,000  
*Prin. Invest.:* D TOWNSHEND  
*Tech. Officer:* GSFC/R C HARRISS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 238 UNIVERSITY OF MARYLAND - COLLEGE PARK 5223**  
 COOPERATIVE RESEARCH AGREEMENT FOR SPACE LASER RES MD, A. JAMES CLARK SCHOOL OF ENGINEERING & NASA/G  
 09/18/1997 - 08/31/2001 FY00: \$379,000 Total: \$2,379,055  
*Prin. Invest.:* D CHRISTOU  
*Tech. Officer:* GSFC/R AFZAL  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 5 243 UNIVERSITY OF MARYLAND - COLLEGE PARK 5224**  
 RANGER TELEROBOTIC FLIGHT EXPERIMENT  
 11/03/1997 - 09/30/2001 FY00: \$5,100,000 Total: \$9,611,377  
*Prin. Invest.:* D AKIN  
*Tech. Officer:* GSFC/D LAVERY  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 274 UNIVERSITY OF MARYLAND - COLLEGE PARK 5225**  
 SUMMER INSTITUTE ON ATMOSPHERIC AND HYDROSPHERIC SCIENCES  
 04/30/1998 - 09/30/2000 FY00: \$0 Total: \$201,835  
*Prin. Invest.:* F BAER  
*Tech. Officer:* GSFC/R HARTLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 5 300 UNIVERSITY OF MARYLAND - COLLEGE PARK 5226**  
 A LANDCOVER EARTH SCIENCE INFORMATION PARTNERSHIP  
 04/21/1998 - 02/28/2001 FY00: \$1,200,000 Total: \$3,640,500  
*Prin. Invest.:* J TOWNSENDE, NONE  
*Tech. Officer:* GSFC/M MAIDEN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 324 UNIVERSITY OF MARYLAND - COLLEGE PARK 5227**  
 SCANNING RAMAN LIDAR TO MEASURE WATER VAPOR AND AE ROSOLS FOR THE STUDY OF ATMOSPHERIC RADIATION ME  
 03/25/1998 - 02/28/1999 FY00: -\$660 Total: \$23,340  
*Prin. Invest.:* R G ELLINGSON  
*Tech. Officer:* GSFC/G SCHWEMMER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 5 353 UNIVERSITY OF MARYLAND - COLLEGE PARK 5228**  
 FUNDS ARE PROVIDED FOR THE GRANT PROPOSAL BY THE UNIVERSITY RESEARCH FOUNDATION FOR ENVIRONET TO  
 08/04/1998 - 12/31/2000 FY00: \$46,030 Total: \$300,000  
*Prin. Invest.:* C F MARTIN  
*Tech. Officer:* GSFC/H PARK  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 5 372 UNIVERSITY OF MARYLAND - COLLEGE PARK 5229**  
 COOPERATIVE RESEARCH IN SPACE SCIENCE WITH THE UNIVERSITY OF MARYLAND  
 12/22/1998 - 12/31/2000 FY00: \$836,953 Total: \$1,251,132  
*Prin. Invest.:* J D TRASCO  
*Tech. Officer:* GSFC/T KOSTIUK  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 374 UNIVERSITY OF MARYLAND - COLLEGE PARK 5230**  
 EARTH SCIENCE INTER-DISCIPLINARY CENTER  
 01/20/1999 - 08/31/2001 FY00: \$1,328,863 Total: \$2,152,787  
*Prin. Invest.:* M BROWN  
*Tech. Officer:* GSFC/R HARTLE, GSFC/C COTE  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 386 UNIVERSITY OF MARYLAND - COLLEGE PARK 5231**  
 SCANNING RAMAN LIDAR TO MEASURE WATER VAPOR AND AE ROSOLS FOR THE STUDY OF ATMOSPHERIC RADIATION ME  
 04/01/1999 - 03/31/2000 FY00: \$0 Total: \$24,000  
*Prin. Invest.:* R ELINGTON  
*Tech. Officer:* GSFC/D WHITEMAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 5 408 UNIVERSITY OF MARYLAND - COLLEGE PARK 5232**  
 PROTOTYPE IMPLEMENTATION OF A RESEARCH ENVIRONMENT FOR ADVANCED LANDSAT MONITORING (REALM)  
 05/17/1999 - 04/30/2001 FY00: \$164,672 Total: \$373,635  
*Prin. Invest.:* S GOWARD  
*Tech. Officer:* GSFC/D L WILLIAMS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 417 UNIVERSITY OF MARYLAND - COLLEGE PARK 5233**  
 RANGER TELEROBOTICS FLIGHT EXPERIMENT  
 08/25/1999 - 08/30/2001 FY00: \$49,461 Total: \$3,645,192  
*Prin. Invest.:* D L AKIN  
*Tech. Officer:* GSFC/D LAVERY  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 449 UNIVERSITY OF MARYLAND - COLLEGE PARK 5234**  
 A STUDY OF THE DEVELOPMENT OF REMOTE SENSING ALGORITHMS  
 02/08/2000 - 12/31/2000 FY00: \$283,882 Total: \$283,882  
*Prin. Invest.:* D ROY  
*Tech. Officer:* GSFC/E J MASUOKA  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 462 UNIVERSITY OF MARYLAND - COLLEGE PARK 5235**  
 EO-1 VALIDATION AND EVALUATION FOR AGRICULTURAL MONITORING  
 02/29/2000 - 12/31/2000 FY00: \$87,257 Total: \$87,257  
 Prin. Invest.: S LIANG  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 464 UNIVERSITY OF MARYLAND - COLLEGE PARK 5236**  
 EVALUATION OF SOFTWARE ENGINEERING METHODOLOGIES  
 02/29/2000 - 02/14/2001 FY00: \$406,000 Total: \$406,000  
 Prin. Invest.: D R BASILI  
 Tech. Officer: GSFC/D E JAMISON  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NCC 5 497 UNIVERSITY OF MARYLAND - COLLEGE PARK 5237**  
 SUMMER INSTITUTE ON ATMOSPHERIC AND HYDROSPHERIC SCIENCES  
 04/19/2000 - 04/30/2001 FY00: \$92,807 Total: \$92,807  
 Prin. Invest.: F BAER  
 Tech. Officer: GSFC/R HARTLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 1 52158 UNIVERSITY OF MARYLAND - COLLEGE PARK 5238**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/23/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: M LEWIS  
 Tech. Officer: LARC/C E COCKRELL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 2 52214 UNIVERSITY OF MARYLAND - COLLEGE PARK 5239**  
 SHAPE MEMORY ALLOY ACTUATION FOR ACTIVE TUNING OF  
 COMPOSITE SHAFTS  
 07/17/1996 - 08/31/2000 FY00: \$8,000 Total: \$74,000  
 Prin. Invest.: I CHOPRA  
 Tech. Officer: ARC/K Q NGYUEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 3 52367 UNIVERSITY OF MARYLAND - COLLEGE PARK 5240**  
 SYNTHESIS OF MOLECULARLY DISPERSED CERAMIC POLYMER NANO-  
 COMPOSITES  
 06/14/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D C WILSON JR  
 Tech. Officer: GRC/F MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 5 50 UNIVERSITY OF MARYLAND - COLLEGE PARK 5241**  
 DEVELOPMENT OF A RATCHETLESS WRENCH FOR EXTRAVEHIC  
 06/23/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D L AKIN  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 5 60 UNIVERSITY OF MARYLAND - COLLEGE PARK 5242**  
 MEASUREMENT OF FIBER STRAIN IN TERMINATED FIBER CO NNECTOR  
 ASSEMBLIES USING IN-FIBER BRAGG GRATING A  
 10/24/1997 - 08/14/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: T MEAD  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NGT 5 62 UNIVERSITY OF MARYLAND - COLLEGE PARK 5243**  
 1998 ASEE-NASA SUMMER FACULTY FELLOWSHIP PROGRAM ( AERO-  
 NAUTICS AND SPACE RESEARCH)  
 04/22/1998 - 09/30/1999 FY00: \$1,255 Total: \$359,251  
 Prin. Invest.: M GAVRILAS  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 99 UNIVERSITY OF MARYLAND - COLLEGE PARK 5244**  
 ESTIMATION OF TROPICAL FOREST ABOVEGROUND USING LARGE FOOT-  
 PRINT LIDAR  
 08/20/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: R DUBAYAH, J DRAKE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 100 UNIVERSITY OF MARYLAND - COLLEGE PARK 5245**  
 GLOBAL CLIMATE CHANGE AND CHOLERA: MODELING OF CHO LERA  
 OCCURRENCE IN SELECTED COASTAL AREAS USING S  
 08/23/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: E RUSSEK-COHN  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 107 UNIVERSITY OF MARYLAND - COLLEGE PARK 5246**  
 FEASIBILITY OF ATMOSPHERIC PENETRATION FOR SATELLITE FORMA-  
 TION FLYING EXPERIMENTS/STUDENT: JOS SCHU  
 06/07/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D PINES  
 Tech. Officer: GSFC/G SOFFEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 30142 UNIVERSITY OF MARYLAND - COLLEGE PARK 5247**  
 THE EFFECT OF WARM TROPICAL ATLANTIC SST ON EARLY SEASON  
 CARIBBEAN RAIN-FALL  
 08/27/1998 - 08/31/2001 FY00: \$0 Total: \$44,000  
 Prin. Invest.: A VERNEKAR, TAYLOR  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30196 UNIVERSITY OF MARYLAND - COLLEGE PARK 5248**  
 TORNADOES: COHERENT FLOW STRUCTURES IN ATMOSPHERIC TURBU-  
 LENCE  
 08/18/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: F BAER/NAWRI  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50083 UNIVERSITY OF MARYLAND - COLLEGE PARK 5249**  
 CHEMISTRY IN COMETS HALE-BOPP AND HYAKUTAKE  
 09/05/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: A HEARN  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50217 UNIVERSITY OF MARYLAND - COLLEGE PARK 5250**  
 CONVECTIVE EFFECTS ON TROPOSPHERIC OZONE CHEMISTRY STUDIED  
 WITH ACOUPLED CLOUD/CHEMISTRY MOD  
 09/15/1998 - 08/31/2001 FY00: \$9,077 Total: \$53,077  
 Prin. Invest.: K PICKERING  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER



**NAG 5 8501 UNIVERSITY OF MARYLAND - EASTERN SHORE 5251**  
 UNIVERSITY OF MARYLAND EASTERN SHORE PRE-COLLEGE TO COLLEGE  
 ENGINEERING BRIDGE PROGRAM  
 05/12/1999 - 07/30/2000 FY00: \$0 Total: \$50,000  
 Prin. Invest.: M WILSON  
 Tech. Officer: WFF/D MENCHAN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 9243 UNIVERSITY OF MARYLAND - EASTERN SHORE 5252**  
 PRE-COLLEGE ACTIVITIES FOR ENHANCING MINORITY PARTICIPATION IN  
 ENGINEERING.  
 03/13/2000 - 03/14/2001 FY00: \$97,556 Total: \$97,556  
 Prin. Invest.: G SINGH  
 Tech. Officer: GSFC/M STOUTSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 437 UNIVERSITY OF MARYLAND - EASTERN SHORE 5253**  
 DESIGN & DEVELOPMENT OF TETHERED BLIMP-BORNE MULTI-SPECTRAL  
 IMAGING DEVICE  
 10/07/1999 - 10/14/2000 FY00: \$32,500 Total: \$32,500  
 Prin. Invest.: E BOYD  
 Tech. Officer: GSFC/R WESCOTT  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 5 64 UNIVERSITY OF MARYLAND - EASTERN SHORE 5254**  
 PRE-COLLEGE TO COLLEGE BRIDGE PROGRAM FOR SUMMER 1998.  
 05/26/1998 - 10/31/1999 FY00: \$0 Total: \$86,000  
 Prin. Invest.: D NAGCHAUDRI  
 Tech. Officer: GSFC/R WESTCOTT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4254 UNIVERSITY OF MARYLAND BALTIMORE 5255**  
 RESEARCH DEVELOPMENT OF A HIGH PERFORMANCE BALTIMORE SPATIAL  
 DATABASE CALIBRATION TESTBED DIRECTED TOW  
 04/01/1997 - 03/31/2000 FY00: \$0 Total: \$452,142  
 Prin. Invest.: D W FORESMAN  
 Tech. Officer: GSFC/N MAYNARD  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1573 UNIVERSITY OF MARYLAND BALTIMORE 5256**  
 IONS AND PROTEIN ASSOCIATION: AW AND PROTEIN CRYSTALS  
 01/19/1999 - 11/30/2002 FY00: \$125,000 Total: \$244,000  
 Prin. Invest.: K COLLINS  
 Tech. Officer: MSFC/B GUYNE  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 1 2022 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5257**  
 A CLIMATOLOGY OF TROPOSPHERIC CO OVER THE CENTRAL AND SOUTH-  
 EASTERN UNITED STATES AND THE SOUTHWESTERN  
 03/12/1998 - 03/11/2001 FY00: \$81,120 Total: \$219,120  
 Prin. Invest.: W W MCMILLAN, G MORRIS, L STROW  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1094 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5258**  
 SCALABLE BENCHMARKS FOR MASS STORAGE SYSTEMS  
 12/06/1996 - 12/31/1998 FY00: -\$31,027 Total: \$161,611  
 Prin. Invest.: E L MILLER  
 Tech. Officer: ARC/J R LEKASHMAN, ARC/S F WALWORTH  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 2751 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5259**  
 OUTREACH PROGRAM FOR FEDERAL LABS  
 10/07/1994 - 06/30/1999 FY00: -\$5,580 Total: \$697,745  
 Prin. Invest.: HIABROWSKI  
 Tech. Officer: GSFC/D MENCHEN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3907 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5260**  
 LABORATORY QUANTITATIVE SPECTROSCOPY OF MODELS OF A  
 02/11/1997 - 04/30/2000 FY00: \$0 Total: \$188,564  
 Prin. Invest.: D SIROTA  
 Tech. Officer: GSFC/M J KURYLO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6460 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5261**  
 VALIDATION OF MOPITT COLUMN & PROFILE CO FROM SPAC EBORNE,  
 AIRBORNE, & GROUND-BASED INTERFEROMETERS  
 10/14/1997 - 09/30/2001 FY00: \$94,248 Total: \$257,305  
 Prin. Invest.: W MCMILLAN  
 Tech. Officer: GSFC/D O STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6514 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5262**  
 DEVELOPMENT AND SUPPORT OF IMPLEMENTATION PROGRAM FOR EOS  
 POTENTIAL USER COMMUNITY THROUGH REGIONAL  
 11/25/1997 - 09/30/2000 FY00: \$130,000 Total: \$575,000  
 Prin. Invest.: T W FORESMAN  
 Tech. Officer: GSFC/A J TUYAHOV  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6555 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5263**  
 MOLECULAR DAMAGE OF HUMAN CELLS BY X-RAYS AND NEUTRONS  
 10/24/1997 - 04/30/2000 FY00: \$0 Total: \$220,538  
 Prin. Invest.: E BALCER-KUBICZEK  
 Tech. Officer: GSFC/W SCHIMMERLING  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 6675 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5264**  
 VALIDATION OF CLOUD OPTICAL DEPTHS RETRIEVED FROM EOS/MODIS  
 DATA  
 12/01/1997 - 09/30/2001 FY00: \$90,546 Total: \$224,822  
 Prin. Invest.: A MARSHAK  
 Tech. Officer: GSFC/D O STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6681 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5265**  
 ASSIMILATION OF WIND OBSERVATIONS FROM THE HIGH RESOLUTION  
 DOPPLERIMAGER  
 12/05/1997 - 11/30/2000 FY00: \$147,581 Total: \$430,241  
 Prin. Invest.: D TANGBORN  
 Tech. Officer: GSFC/C JACKMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6996 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5266**  
 A STUDY OF UNCERTAINTIES FOR MODIS CLOUD RETRIEVALS OF  
 OPTICAL THICKNESS AND EFFECTIVE RADIUS  
 02/06/1998 - 12/14/2001 FY00: \$91,844 Total: \$202,354  
 Prin. Invest.: D PLATNICK  
 Tech. Officer: GSFC/D STARR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7385 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5267**  
 X-RAY SPECTROSCOPY OF ACTIVE GALACTIC NUCLEI: (LT SA)  
 05/15/1998 - 06/30/2001 FY00: \$122,514 Total: \$353,895  
 Prin. Invest.: T J TURNER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7563 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5268**  
 MODELING OF SHORTWAVE RADIATION FIELDS USING ATMOSPHERIC  
 RADIATION MEASUREMENTS (ARM) AND LANDSAT D  
 06/29/1998 - 06/30/2001 FY00: \$93,200 Total: \$271,720  
 Prin. Invest.: A MARSHAK  
 Tech. Officer: GSFC/W WISCOMBE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7774 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5269**  
 CLOUDLESS SCENE IDENTIFICATION FOR AEROSOL RETRIEVAL FROM  
 TOMS MEASUREMENTS  
 10/28/1998 - 10/31/2001 FY00: \$64,000 Total: \$128,000  
 Prin. Invest.: O TORRES  
 Tech. Officer: GSFC/M I MISCHENKO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7909 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5270**  
 TRMM PRECIPITATION RADAR: DEVELOPMENT OF A RAIN RETRIEVAL  
 ALGORITHM USING GROUND VALIDATION DATA  
 12/08/1998 - 12/14/2000 FY00: \$46,988 Total: \$137,070  
 Prin. Invest.: E AMITAI  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8201 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5271**  
 AIRBORNE SCANNING RAMAN LIDAR SYSTEM BASED ON HOLOGRAPHIC  
 OPTICAL ELEMENT SCANNER/RECEIVER  
 02/08/1999 - 02/14/2001 FY00: \$18,518 Total: \$67,852  
 Prin. Invest.: H PLOTKIN  
 Tech. Officer: GSFC/D WHITMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8231 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5272**  
 USE OF DATA FROM TRMM FIELD CAMPAIGNS IN IMPROVED INITIALIZA-  
 TION AND VALIDATION OF HIGH RESOLUTION  
 03/03/1999 - 03/14/2001 FY00: \$56,750 Total: \$156,420  
 Prin. Invest.: B S FERRIER  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8379 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5273**  
 VARIATIONAL ASSIMILATION OF TRMM-DERIVED PRECIPITATION  
 OBSERVATIONS FOR THE IMPROVEMENT OF NUMERICAL  
 04/14/1999 - 04/14/2001 FY00: \$25,596 Total: \$50,393  
 Prin. Invest.: W S OLSON  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8640 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5274**  
 THE MEYERHOFF SCHOLARSHIP PROGRAM  
 07/06/1999 - 10/31/2000 FY00: \$0 Total: \$200,000  
 Prin. Invest.: E B BAKER  
 Tech. Officer: GSFC/D MENCHAN  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NAG 5 9033 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5275**  
 RESEARCH & DEVELOPMENT OF A HIGH PERFORMANCE BALTIMORE  
 WASHINGTON REGIONAL CALIBRATION TESTBED  
 02/07/2000 - 02/14/2001 FY00: \$152,000 Total: \$152,000  
 Prin. Invest.: S KOH  
 Tech. Officer: GSFC/D KAHLE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9054 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5276**  
 INNOVATIVE ANALYSIS OF GRAVITY MAPPING MISSION DATA  
 02/10/2000 - 02/14/2001 FY00: \$37,500 Total: \$37,500  
 Prin. Invest.: E C PAVLIS  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9346 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5277**  
 UNDERSTANDING TON SI80? (ADP - 99)  
 03/31/2000 - 03/31/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: T J TURNER  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9588 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5278**  
 LABORATORY QUANTITATIVE SPECTROSCOPY OF MOLECULES OF  
 ATMOSPHERIC RELEVANCE  
 05/11/2000 - 12/31/2000 FY00: \$51,433 Total: \$51,433  
 Prin. Invest.: J M SIROTA  
 Tech. Officer: GSFC/M KURYLO  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9645 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5279**  
 A COMPARATIVE STUDY OF FOREST MAPPING METHODS AND ALGO-  
 RITHMS: TOWARDS OPTIMAL SOLUTIONS FOR OPERATION  
 06/12/2000 - 06/30/2001 FY00: \$64,495 Total: \$64,495  
 Prin. Invest.: Y SOHN  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9698 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5280**  
 IMPROVEMENT OF CONVECTIVE/STRATIFORM SEPARATION & LATENT  
 HEATING PROFILE ESTIMATION FROM TRMM  
 07/21/2000 - 11/30/2000 FY00: \$113,000 Total: \$113,000  
 Prin. Invest.: W S OLSON  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9699 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5281**  
 ORGANIZATION, STRUCTURE, AND EVOLUTION OF TROPICAL CONVEC-  
 TIONS IN SOUTH CHINA SEA MONSOON AND THEIR  
 07/27/2000 - 05/31/2001 FY00: \$46,667 Total: \$46,667  
 Prin. Invest.: J WANG  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9707 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5282**  
 US INDIA COLLABORATIVE RESEARCH ON MONSOON PREDICTABILITY  
 06/16/2000 - 05/31/2001 FY00: \$23,856 Total: \$23,856  
 Prin. Invest.: A MEHTA, NONE  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9718 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5283**  
 INVESTIGATIONS OF MARITIME & CONTINENTAL TROPICAL CONVECTIVE  
 SYSTEMS USING DATA FROM TRMM FIELD E  
 06/19/2000 - 06/30/2001 FY00: \$56,000 Total: \$56,000  
 Prin. Invest.: J B HALVERSON  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9816 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5284**  
 CLIMATOLOGY AND EVOLUTION OF CONVECTIVE SYSTEMS CO MBINING  
 SURFACE RADAR & GEOSTATIONARY INFRARED SA  
 07/21/2000 - 07/31/2001 FY00: \$43,750 Total: \$43,750  
 Prin. Invest.: T M RICKENBACH  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9954 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5285**  
 MYERHOFF SCHOLARSHIP PROGRAM  
 09/08/2000 - 09/14/2001 FY00: \$200,000 Total: \$200,000  
 Prin. Invest.: E B BAKER  
 Tech. Officer: GSFC/D MENCHAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9995 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5286**  
 A SPECTRAL STUDY OF A NEW CLASS OF RADIO QUASARS  
 09/20/2000 - 03/31/2001 FY00: \$21,878 Total: \$21,878  
 Prin. Invest.: E S PERLMAN  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9996 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5287**  
 VARIABILITY AND HARD-X-RAY SPECTRA OF BL LACERTAE OBJECTS  
 09/21/2000 - 06/30/2001 FY00: \$2,790 Total: \$2,790  
 Prin. Invest.: E PERLMAN, NONE  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9997 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5288**  
 THE PHYSICS OF EXTRAGALACTIC RADIO/OPTICAL/X-RAY JETS  
 09/20/2000 - 03/14/2001 FY00: \$46,603 Total: \$46,603  
 Prin. Invest.: E S PERLMAN, NONE  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10024 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5289**  
 DIAGNOSTICS OF THE ISM IN INTERMEDIATE REDSHIFT GALAXIES USING  
 BACKGROUND BL LACS  
 09/27/2000 - 09/30/2001 FY00: \$5,080 Total: \$5,080  
 Prin. Invest.: E S PERLMAN  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 9 1190 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5290**  
 EFFECTS OF EXPOSURE TO HEAVY PARTICLES  
 01/20/2000 - 01/19/2003 FY00: \$157,687 Total: \$157,687  
 Prin. Invest.: B M RABIN  
 Tech. Officer: JSC/F A CUCINOTTA  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NAS 1 99107 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5291**  
 PICASSO-CENA SCIENCE TEAM SUPPORT FOR AEROSOL RETRIEVAL  
 STUDIES  
 11/02/1999 - 11/01/2000 FY00: \$5,000 Total: \$5,000  
 Prin. Invest.: R M HOFF  
 Tech. Officer: LARC/G G GIBSON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 00173 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5292**  
 PARTICIPATION IN THE OZONE MONITORING INSTRUMENT SCIENCE TEAM.  
 06/06/2000 - 10/31/2000 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: O TORRES  
 Tech. Officer: GSFC/J LOICAINO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 31378 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5293**  
 EOS EXECUTION PHASE  
 12/16/1991 - 12/14/2001 FY00: \$500,000 Total: \$2,608,000  
 Prin. Invest.: L L STROW  
 Tech. Officer: GSFC/E R KREINS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 99141 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5294**  
 COMPACT HYPERSPECTRAL MAPPER FOR ENVIRONMENTAL APPLICA-  
 TIONS (CHYMER).  
 02/08/1999 - 02/07/2001 FY00: \$225,062 Total: \$526,180  
 Prin. Invest.: S JANZ  
 Tech. Officer: GSFC/J HARTLEY  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 339 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5295**  
 JOINT CENTER FOR EARTH SYSTEM TECHNOLOGY NEW AWARD  
 07/01/1998 - 06/30/2001 FY00: \$3,376,536 Total: \$8,477,604  
 Prin. Invest.: R HOFF, R HOFF, NONE  
 Tech. Officer: GSFC/R E HARTLE, GSFC/C E COTE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 361 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5296**  
 DESKTOP STEREOSCOPIC VISUALIZATION AND ANALYSIS OF MULTI-DI-  
 MENSIONAL DATA SETS  
 09/08/1998 - 09/14/2000 FY00: \$0 Total: \$129,876  
 Prin. Invest.: D S EBERT  
 Tech. Officer: GSFC/A ROBERTS  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 5 367 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5297**  
 LHEA/UMBC COOPERATIVE AGREEMENT (LUCA)  
 10/20/1998 - 12/31/2000 FY00: \$295,752 Total: \$415,742  
 Prin. Invest.: M J HENRIKEN  
 Tech. Officer: GSFC/J F ORMES  
 CASE Category: 11 - ASTRONOMY

**NGT 5 48 UNIVERSITY OF MARYLAND BALTIMORE COUNTY 5298**  
 HOLOGRAPHIC STORAGE USING PHOTOREFRACTIVE POLYMERS  
 06/23/1997 - 06/30/1999 FY00: -\$22,000 Total: \$44,000  
 Prin. Invest.: L M HAYDEN  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 22 - COMPUTER SCIENCE

## MASSACHUSETTS

**NAG 1 2057 BOSTON COLLEGE 5299**  
 ENHANCEMENT OF SOLID STATE LASER OUTPUT VIA INTERI ONIC ENERGY TRANSFER  
 04/24/1998 - 11/30/2000 FY00: \$99,509 Total: \$242,971  
 Prin. Invest.: B DIBARTOIO, B WALSH  
 Tech. Officer: LARC/N P BARNES, LARC/J C BARNES  
 CASE Category: 13 - PHYSICS

**NAG 5 4946 BOSTON COLLEGE 5300**  
 CHANGES IN MAGNETIC TOPOLOGY ASSOCIATED WITH CORON OBSERVED BY LASCO  
 06/24/1997 - 09/30/1999 FY00: \$0 Total: \$49,998  
 Prin. Invest.: D F WEBB  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 8 1304 BOSTON COLLEGE 5301**  
 R/S FIBRIL FORMATION BY ALZHEIMER'S DISEASE AMYLOID IN MICROGRAVITY  
 10/24/1996 - 10/23/1998 FY00: -\$3,991 Total: \$310,629  
 Prin. Invest.: D KIRSCHNER  
 Tech. Officer: MSFC/L KARR, MSFC/D C CARTER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 2 1432 BOSTON UNIVERSITY 5302**  
 INTEGRATION OF ATMOSPHERIC, LABORATORY, & SATELITE DATA TO ESTIMATE BIOSPHERIC SOURCES OF OXYGENATE  
 08/15/2000 - 11/30/2000 FY00: \$38,000 Total: \$38,000  
 Prin. Invest.: R B MYNENI  
 Tech. Officer: ARC/C S POTTER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 3 1844 BOSTON UNIVERSITY 5303**  
 DETERMINATION OF INTERFACIAL RHEOLOGICAL PROPERTIE S THROUGH MICROGRAVITY OSCILLATIONS OF BUBBLES DR  
 05/03/1996 - 08/31/2000 FY00: \$20,000 Total: \$272,000  
 Prin. Invest.: A NADIM  
 Tech. Officer: GRC/B SINGH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 3 2121 BOSTON UNIVERSITY 5304**  
 RHEOLOGY OF FOAM NEAR THE ORDER-DISORDER TRANSITIO N  
 02/17/1998 - 08/31/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: R G HOLT, J G MCDANIEL  
 Tech. Officer: GRC/R B ROGERS  
 CASE Category: 13 - PHYSICS

**NAG 3 2143 BOSTON UNIVERSITY 5305**  
 SONOLUMINESCENCE IN SPACE: THE CRITICAL ROLE OF B OUYANCY IN STABILITY AND EMISSION MECHANISMS  
 04/10/1998 - 01/08/2002 FY00: \$150,000 Total: \$355,000  
 Prin. Invest.: R G HOLT, R A ROY  
 Tech. Officer: GRC/N R HALL  
 CASE Category: 13 - PHYSICS

**NAG 3 2392 BOSTON UNIVERSITY 5306**  
 RHEOLOGY OF FOAM NEAR THE ORDER-DISORDER PHASE TRA NSITION  
 04/18/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D HOLT  
 Tech. Officer: GRC/R B ROGERS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 690 BOSTON UNIVERSITY 5307**  
 A SOUNDING ROCKET PROGRAM IN EXTREME AND FAR UV INTERFER-OMETRY  
 04/29/1992 - 01/31/2001 FY00: \$0 Total: \$2,352,044  
 Prin. Invest.: S CHAKRABARTI  
 Tech. Officer: GSFC/R H PLESS  
 CASE Category: 13 - PHYSICS

**NAG 5 3384 BOSTON UNIVERSITY 5308**  
 TOWARD A REFINED UNDERSTANDING OF THE HIGH-ENERGY GAMMA-RAY UNIVERSE  
 08/28/1996 - 08/31/2001 FY00: \$0 Total: \$365,000  
 Prin. Invest.: J R MATTOX  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3439 BOSTON UNIVERSITY 5309**  
 MONITORING CHANGE IN TEMPERATE CONIFEROUS FOREST E COSYS-TEMS  
 10/07/1996 - 12/31/2000 FY00: \$233,243 Total: \$864,153  
 Prin. Invest.: C WOODCOCK  
 Tech. Officer: GSFC/D L WILLIAMS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3748 BOSTON UNIVERSITY 5310**  
 THE MAGNETOSPHERIC MAPPING MISSION  
 03/10/1997 - 03/14/2001 FY00: \$0 Total: \$200,000  
 Prin. Invest.: D E SPENCE  
 Tech. Officer: GSFC/R HOWARD  
 CASE Category: 13 - PHYSICS

**NAG 5 3806 BOSTON UNIVERSITY 5311**  
 TIMING THE GEMINGA PULSAR WITH HIGH-ENERGY GAMMA R A MULTIWA-VELENGTH STUDY OF THE GAMMA-RAY BLAZER P  
 12/13/1996 - 12/14/2000 FY00: \$0 Total: \$76,000  
 Prin. Invest.: J R MATTOX  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3839 BOSTON UNIVERSITY 5312**  
 FREQUENCY STRATIFICATION OF THE NONTHERMAL EMISSIO  
 02/24/1997 - 02/28/2001 FY00: \$0 Total: \$286,000  
 Prin. Invest.: A P MARSCHER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3991 BOSTON UNIVERSITY 5313**  
 VITAMIN D RDA FROM SUPPLEMENT OR LIGHT  
 02/28/1997 - 05/14/1999 FY00: -\$18,667 Total: \$384,249  
 Prin. Invest.: M F HOLICK  
 Tech. Officer: GSFC/V SCHNEIDER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

## NASA'S UNIVERSITY PROGRAM

## MASSACHUSETTS

**NAG 5 3999 BOSTON UNIVERSITY 5314**  
 A SILICON ANODE DETECTOR WITH INTEGRATED ELECTRONIC  
 03/06/1997 - 02/28/2001 FY00: \$0 Total: \$491,700  
 Prin. Invest.: D CHAKRABARTI  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4245 BOSTON UNIVERSITY 5315**  
 MONITORING OF TWO BLAZARS WITH FREQUENCY-SIMULTANE MULTIWA-  
 VEBAND MONITORING OF THE PROMINENT BLAZER  
 04/07/1997 - 04/14/1999 FY00: \$0 Total: \$38,979  
 Prin. Invest.: A MARSCHER  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4246 BOSTON UNIVERSITY 5316**  
 USE OF ENERGETIC NEUTRAL ATOMS AS DIAGNOSTICS OF M PROCESSES  
 03/26/1997 - 04/30/2001 FY00: \$104,766 Total: \$262,266  
 Prin. Invest.: D MENDILLO  
 Tech. Officer: GSFC/J GREBOWSKY  
 CASE Category: 13 - PHYSICS

**NAG 5 4273 BOSTON UNIVERSITY 5317**  
 SEPARATING SPATIAL AND TEMPORAL VARIATIONS OF THE NEARLY COLO-  
 CATED SATELLITES  
 04/04/1997 - 04/30/2001 FY00: \$0 Total: \$222,632  
 Prin. Invest.: D E SPENCE  
 Tech. Officer: GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 4426 BOSTON UNIVERSITY 5318**  
 CONTINUED STUDIES OF OUTER SOLAR SYSTEM ATMOSPHERE  
 04/17/1997 - 08/31/1999 FY00: \$0 Total: \$171,000  
 Prin. Invest.: D V YELLE  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4660 BOSTON UNIVERSITY 5319**  
 TRANSIENT FLOWS IN THE MAGNETOSPHERIC CUSP: GROUND CORRELA-  
 TION  
 06/05/1997 - 12/31/1999 FY00: \$0 Total: \$153,670  
 Prin. Invest.: D HUGHES  
 Tech. Officer: GSFC/J GREBOWSKY  
 CASE Category: 13 - PHYSICS

**NAG 5 4707 BOSTON UNIVERSITY 5320**  
 USE OF NASA'S GLOBAL POSITIONING SYSTEM (GPS) MONITOR STUDIES OF  
 IONOSPHERIC STRUCTURE AND VARIABILITY  
 06/11/1997 - 05/31/2001 FY00: \$0 Total: \$200,000  
 Prin. Invest.: D MENDILLO  
 Tech. Officer: GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 4850 BOSTON UNIVERSITY 5321**  
 POLAR-WIDE GEOPHYSICAL PRODUCTS DERIVED FROM AVHRR  
 07/25/1997 - 03/31/1999 FY00: -\$1,199 Total: \$9,874  
 Prin. Invest.: D KEY  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4903 BOSTON UNIVERSITY 5322**  
 DOCUMENTING, UNDERSTANDING, AND PREDICTING THE AG RADIATION  
 FLUX FOR SHEBA  
 06/20/1997 - 08/31/1999 FY00: \$18,751 Total: \$86,336  
 Prin. Invest.: D R KEY  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4991 BOSTON UNIVERSITY 5323**  
 A NEW SCIENTIFIC USE OF TOTAL ECLIPSES OF THE MOON GENERATION  
 AND LOSS OF ATMOSPHERES PRIMITIVE BODI  
 06/27/1997 - 06/30/1999 FY00: \$0 Total: \$80,000  
 Prin. Invest.: D MENDILLO  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5137 BOSTON UNIVERSITY 5324**  
 SPECTRE: STUDENT-RUN PROGRAM FOR EXOATMOSPHERIC  
 COLLECTING TECHNOLOGIES & ROCKET EXPERIMENTS  
 04/14/1997 - 12/31/2000 FY00: \$10,000 Total: \$43,195  
 Prin. Invest.: S CHAKRABARTI  
 Tech. Officer: GSFC/W JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5251 BOSTON UNIVERSITY 5325**  
 A SUBORBITAL RESEARCH PROGRAM IN ULTRAVIOLET HIGH RESOLUTION  
 AND IMAGING SPECTROSCOPY PI CHAKRABARTI  
 02/04/2000 - 02/03/2003 FY00: \$301,439 Total: \$301,439  
 Prin. Invest.: S CHAKRABARTI  
 Tech. Officer: WFF/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 6126 BOSTON UNIVERSITY 5326**  
 EMPIRICAL MODELING OF THE INNER MAGNETOSPHERIC PLASMAS TO  
 MAGNETIC EQUILIBRIA STRUCTURE AND FIELDS  
 08/04/1997 - 06/30/1999 FY00: \$0 Total: \$50,001  
 Prin. Invest.: D SPENCE  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 6214 BOSTON UNIVERSITY 5327**  
 MODELING AND FORECASTING EFFECTS OF LAND-USE CHANGE  
 SOCIOECONOMIC DRIVERS  
 08/18/1997 - 12/31/2000 FY00: \$33,550 Total: \$312,042  
 Prin. Invest.: D K KAUFMANN  
 Tech. Officer: GSFC/G C GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6335 BOSTON UNIVERSITY 5328**  
 XTE AO2 - A MULTIWAVELENGTH STUDY OF THE BLAZAR PKS 1622-297  
 10/02/1997 - 09/30/1999 FY00: \$0 Total: \$15,000  
 Prin. Invest.: J MATTOX  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6658 BOSTON UNIVERSITY 5329**  
 ULYSSES DATA ANALYSIS: MAGNETIC TOPOLOGY OF HELIO SPHERIC  
 STRUCTURES  
 11/20/1997 - 12/31/2000 FY00: \$70,541 Total: \$203,772  
 Prin. Invest.: N CROOKER  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6716 BOSTON UNIVERSITY 5330**  
 THERMAL AND HYDROLOGIC SIGNATURE OF SOIL CONTROLS ON EVAPORATION: A COMBINED ENERGY AND WATER  
 12/10/1997 - 06/30/2000 FY00: \$0 Total: \$148,814  
 Prin. Invest.: G SALVUCCI  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6755 BOSTON UNIVERSITY 5331**  
 ANALYSIS AND MODELING OF COMET HALE-BOPP'S MULTIPLE TAILS  
 12/16/1997 - 02/28/2001 FY00: \$0 Total: \$96,000  
 Prin. Invest.: M MENDILLO  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6926 BOSTON UNIVERSITY 5332**  
 THE CLUSTER II RAPIDIES EFFORT AT BOSTON UNIVERSITY-PRELAUNCH  
 ACTIVITY  
 02/05/1998 - 10/31/2000 FY00: \$59,451 Total: \$202,788  
 Prin. Invest.: T FRITZ  
 Tech. Officer: GSFC/L CHRISTENSEN  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 5 7049 BOSTON UNIVERSITY 5333**  
 WIND DATA ANALYSIS: GLOBAL HELIOSPHERIC STRUCTURES  
 02/26/1998 - 03/31/2001 FY00: \$37,700 Total: \$117,700  
 Prin. Invest.: N U CROOKER  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7217 BOSTON UNIVERSITY 5334**  
 GEOMETRIC OPTICAL MODELING OF DIRECTIONAL THERMAL RADIANCE  
 FOR IMPROVEMENT OF LAND SURFACE TEMPERATURE  
 04/17/1998 - 04/14/2001 FY00: \$93,846 Total: \$266,150  
 Prin. Invest.: X LI  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7218 BOSTON UNIVERSITY 5335**  
 MACHINE LEARNING TO IMPROVE LAND COVER CLASSIFICATIONS FROM  
 MULTISENSOR AND MULTITEMPORAL DATA  
 04/09/1998 - 04/14/2001 FY00: \$29,237 Total: \$84,433  
 Prin. Invest.: M FRIEDL  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7323 BOSTON UNIVERSITY 5336**  
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS  
 04/24/1998 - 04/30/2000 FY00: \$0 Total: \$9,970  
 Prin. Invest.: A P MARSCHER  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7331 BOSTON UNIVERSITY 5337**  
 XTE PROPOSAL MULTIWAVEBAND MONITORING OF THE RADIO GALAXY  
 3C 120  
 04/24/1998 - 04/30/2000 FY00: \$0 Total: \$10,500  
 Prin. Invest.: A MARSCHER  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7338 BOSTON UNIVERSITY 5338**  
 XTE PROPOSAL - CONTINUED RXTE OBSERVATIONS OF THREE BLAZARS  
 04/24/1998 - 04/30/2000 FY00: \$0 Total: \$7,325  
 Prin. Invest.: A MARSCHER  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7452 BOSTON UNIVERSITY 5339**  
 SIMULATIONS AND THEORY OF THE FARLEY-BUNEMAN INSTABILITY IN  
 THE E-REGION IONOSPHERE  
 07/10/1998 - 08/31/2001 FY00: \$0 Total: \$157,357  
 Prin. Invest.: M OPPENHEIM  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 7472 BOSTON UNIVERSITY 5340**  
 ADVANCED DATA SETS FROM FUSION OF AVHRR AND SEAWIFS DATA  
 06/16/1998 - 06/30/2001 FY00: \$0 Total: \$70,775  
 Prin. Invest.: R MYNENI  
 Tech. Officer: GSFC/C TUCKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7677 BOSTON UNIVERSITY 5341**  
 STUDIES BY THE CAMMICE INVESTIGATION TEAM DURING THE EXTENDED  
 MISSION OF GGSPOL  
 09/18/1998 - 09/30/2000 FY00: \$253,000 Total: \$975,607  
 Prin. Invest.: T FRITZ  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7706 BOSTON UNIVERSITY 5342**  
 STUDIES OF MAGNETOSPHERIC ENERGETIC PARTICLES IN THE SOLAR  
 MAXIMUM AREA  
 10/01/1998 - 12/31/1999 FY00: \$130,000 Total: \$280,000  
 Prin. Invest.: H E SPENCER  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7841 BOSTON UNIVERSITY 5343**  
 CUSP ENERGETIC PARTICLES: CONFINEMENT, ACCELERATION AND  
 IMPLICATIONS (SEC GI PROGRAM) NRA-98-03-  
 11/17/1998 - 12/31/1999 FY00: \$0 Total: \$70,000  
 Prin. Invest.: J CHEN  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 7861 BOSTON UNIVERSITY 5344**  
 DYNAMICS OF JOVIAN UPPER ATMOSPHERES FROM STELLAR OCCULTATIONS  
 01/07/1999 - 03/31/2000 FY00: -\$19,271 Total: \$30,729  
 Prin. Invest.: D A YOUNG  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8012 BOSTON UNIVERSITY 5345**  
 INVESTIGATIONS INTO THE ORIGIN OF THE MOON'S ATMOSPHERE:  
 OBSERVATIONS AND MODELING  
 01/13/1999 - 12/31/2000 FY00: \$64,244 Total: \$132,420  
 Prin. Invest.: M MENDILLO  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8039 BOSTON UNIVERSITY 5346**  
 MULTIPOINT ENERGETIC NEUTRAL ATOM STUDIES WITH POLAR, GEOTAIL,  
 AND TIROS  
 01/11/1999 - 01/14/2001 FY00: \$0 Total: \$59,748  
 Prin. Invest.: H E SPENCE  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 8135 BOSTON UNIVERSITY 5347**  
 "SIGNATURES OF MAGNETOPAUSE RECONNECTION".  
 01/29/1999 - 01/31/2001 FY00: \$237,296 Total: \$365,166  
 Prin. Invest.: G L SISCOE  
 Tech. Officer: GSFC/J GREBOWSKY  
 CASE Category: 13 - PHYSICS

**NAG 5 8147 BOSTON UNIVERSITY 5348**  
 AN AUDIO-MULTIMEDIA WORKSTATION: SCIENCE DATA ANALYSIS USING  
 SONIFICATION AND SIMULTANEOUS  
 02/04/1999 - 12/31/2000 FY00: \$86,900 Total: \$176,485  
 Prin. Invest.: J D SULLIVAN  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8584 BOSTON UNIVERSITY 5349**  
 INVESTIGATION OF AERODYNAMIC AND RADIOMETRIC LAND SURFACE  
 TEMPERATURES  
 06/21/1999 - 06/30/2001 FY00: \$21,958 Total: \$43,071  
 Prin. Invest.: M A FRIEDL  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8659 BOSTON UNIVERSITY 5350**  
 COLLECTION OF LAI & FPAR DATA OVER THE TERRA CORE SITES  
 08/31/1999 - 08/31/2000 FY00: \$0 Total: \$25,000  
 Prin. Invest.: R MYNENI  
 Tech. Officer: GSFC/J PRIVETTE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8666 BOSTON UNIVERSITY 5351**  
 DIRECT ESTIMATION OF THE FORM AND SCALE-DEPENDENCE OF SOIL  
 MOISTURE CONTROL ON LAND SURFACE WATER  
 07/01/1999 - 12/31/2000 FY00: \$0 Total: \$50,000  
 Prin. Invest.: G D SALVUCCI  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8756 BOSTON UNIVERSITY 5352**  
 GRAVITATIONAL LENSING: RECENT PROGRESS AND FUTURE GOALS  
 CONFERENCE  
 08/25/1999 - 06/30/2001 FY00: \$0 Total: \$13,996  
 Prin. Invest.: T BRAINERD  
 Tech. Officer: GSFC/L KALUZIENSKI  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9110 BOSTON UNIVERSITY 5353**  
 SUBSTORM EVOLUTION IN THE NEAR-EARTH PLASMA SHEET  
 02/23/2000 - 02/28/2001 FY00: \$87,900 Total: \$87,900  
 Prin. Invest.: G ERICKSON  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9161 BOSTON UNIVERSITY 5354**  
 RXTE OBSERVATIONS OF SELECTED BLAZARS - ADP - 99  
 03/08/2000 - 03/14/2001 FY00: \$23,580 Total: \$23,580  
 Prin. Invest.: A MARSCHER  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9191 BOSTON UNIVERSITY 5355**  
 SUPPORT FOR SCIENTIFIC EVALUATION OF RAPID ON ORBIT  
 PERFORMANCE  
 03/08/2000 - 03/14/2001 FY00: \$72,855 Total: \$72,855  
 Prin. Invest.: T FRITZ  
 Tech. Officer: GSFC/L CHRISTENSEN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9444 BOSTON UNIVERSITY 5356**  
 SIMULATIONS & THEORY OF ELECTRON PHASE-SPACE HOLES OBSERVED  
 IN THE AUROREAL IONOSPHERE  
 04/13/2000 - 04/14/2001 FY00: \$37,000 Total: \$37,000  
 Prin. Invest.: M OPPENHEIM  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9547 BOSTON UNIVERSITY 5357**  
 MULTI-DECADAL PATHFINDER DATA SETS OF GLOBAL LAND BIOPHYSICAL  
 VARIABLES FROM AVHRR & MODIS & THEIR  
 05/16/2000 - 05/31/2001 FY00: \$76,430 Total: \$76,430  
 Prin. Invest.: R MYNENI  
 Tech. Officer: GSFC/DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9557 BOSTON UNIVERSITY 5358**  
 MULTIPOINT ENERGETIC NEUTRAL ATOM IMAGING WITH POLAR GEOTAIL  
 AND TIROS  
 05/16/2000 - 05/14/2001 FY00: \$58,999 Total: \$58,999  
 Prin. Invest.: H SPENCE  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9562 BOSTON UNIVERSITY 5359**  
 NEW ISTP SOLAR MAX: CUSP ENERGETIC PARTICLES  
 05/09/2000 - 05/14/2001 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: J CHEN  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9582 BOSTON UNIVERSITY 5360**  
 A LARGE FORMAT, MINIATURIZED, PHOTON COUNTING IMAGING SYSTEM  
 WITH MICRO-CHANNEL PLATE PORE-LIMITED  
 05/09/2000 - 05/14/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: S CHAKRABARTI  
 Tech. Officer: GSFC/P CRANE  
 CASE Category: 13 - PHYSICS

**NAG 8 1522 BOSTON UNIVERSITY 5361**  
 DIRECT USE OF SATELLITE REMOTE SENSING IN THE ESTIMATION OF  
 HYDROLOGIC TRANSPORTS.  
 05/22/1998 - 04/30/2001 FY00: \$47,314 Total: \$134,869  
*Prin. Invest.:* G D SALVUCCI  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 31369 BOSTON UNIVERSITY 5362**  
 MODERATE RESOLUTION IMAGING SPECTROMETER INVESTIGATION -  
 LAND COVER CHANGES  
 12/30/1991 - 12/14/2001 FY00: \$750,000 Total: \$4,744,303  
*Prin. Invest.:* W STRAHLER  
*Tech. Officer:* GSFC/H OSEROFF  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 96061 BOSTON UNIVERSITY 5363**  
 MODIS  
 09/27/1996 - 12/14/2001 FY00: \$538,000 Total: \$1,601,000  
*Prin. Invest.:* R B MYNENI  
*Tech. Officer:* GSFC/D TOLL  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 97147 BOSTON UNIVERSITY 5364**  
 DATA ANALYSIS FOR CEPPAD  
 02/28/1997 - 12/31/1998 FY00: \$0 Total: \$413,538  
*Prin. Invest.:* H SPENCE  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 11 - ASTRONOMY

**NGT 1 52199 BOSTON UNIVERSITY 5365**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 07/20/1998 - 06/30/2001 FY00: \$32,000 Total: \$54,000  
*Prin. Invest.:* K P HARLING, B DI BARTOLO  
*Tech. Officer:* LARC/J C BARNES, LARC/N P BARNES  
*CASE Category:* 13 - PHYSICS

**NGT 5 30223 BOSTON UNIVERSITY 5366**  
 RELATION BETWEEN INTERANNUAL VARIABILITY IN ATMOSPHERIC CO<sub>2</sub>,  
 SEA (ENSO) AND LAND SURFACE TEMPERATURE  
 09/20/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* R MYNENI, L ZHOU  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50171 BOSTON UNIVERSITY 5367**  
 TOMOGRAPHIC IMAGING OF THE HOT INTERSTELLAR MEDIA USING  
 ULTRAVIOLET SPECTROSCOPY  
 06/03/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* S CHAKRABARTI  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 5 50288 BOSTON UNIVERSITY 5368**  
 SIMULATION OF PLASMA TURBULENCE IN THE AURORAL IONOSPHERE  
 08/28/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* M OPPENHEIM  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NGT 5 50307 BOSTON UNIVERSITY 5369**  
 GENE EXPRESSION PROFILE OF UNLOADED SKELETAL MUSCLE -  
 STUDENT: ERIC STEVENSON  
 07/06/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* S KANDARIAN  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NGT 5 50309 BOSTON UNIVERSITY 5370**  
 A PROSTHETIC FOOT SOLE FOR THE MITIGATION OF BALANCE DEFICITS  
 CAUSED BY REDUCED PLANTAR SENSATION  
 07/07/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* L ODDSSON  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NAG 3 2386 BRANDEIS UNIVERSITY 5371**  
 NUCLEATION OF COLLOIDAL AND PROTEIN CRYSTALS IN THE VICINITY OF  
 A METASTABLE CRITICAL POINT  
 04/07/2000 - 11/30/2003 FY00: \$75,000 Total: \$75,000  
*Prin. Invest.:* D FRADEN  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 6100 BRANDEIS UNIVERSITY 5372**  
 THE GRAYBIEL LABORATORY ROTATING ROOM RESEARCH FACILITY  
 10/02/1997 - 08/31/2000 FY00: \$288,273 Total: \$825,418  
*Prin. Invest.:* D LACKNER  
*Tech. Officer:* GSFC/V SCHNEIDER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 9 1037 BRANDEIS UNIVERSITY 5373**  
 MOTOR ADAPTATION TO CORIOLIS AND CONTACT  
 07/01/1998 - 06/30/2001 FY00: \$104,412 Total: \$545,412  
*Prin. Invest.:* J LACKNER  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 9 1038 BRANDEIS UNIVERSITY 5374**  
 ADAPTATION IN ARTIFICIAL GRAVITY ENVIRONMENTS  
 06/25/1998 - 06/30/2001 FY00: \$149,940 Total: \$366,940  
*Prin. Invest.:* J LACKNER  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NGT 5 50136 BRANDEIS UNIVERSITY 5375**  
 DOPPLER FACTORS AND PROPER MOTIONS IN SUPERLUMINAL  
 09/11/1997 - 01/31/2000 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* J F WARDLE  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NAG 2 1443 CLARK UNIVERSITY 5376**  
 COFFEE HARVEST OPTIMIZATION USING UAV PLATFORMS FOR THE  
 ACQUISITION OF HIGH SPATIAL RESOLUTION REAL  
 09/27/2000 - 12/31/2000 FY00: \$90,000 Total: \$90,000  
*Prin. Invest.:* S R HERWITZ  
*Tech. Officer:* ARC/S S WEGENER, ARC/R S HIPSKIN  
*CASE Category:* 55 - AGRICULTURE



<b>NAG 5 6046</b>	<b>CLARK UNIVERSITY</b>	<b>5377</b>	
LAND-USE COVER IN THE SOUTHERN YUCATAN PENINSULA R			
07/31/1997 - 12/31/2000	FY00: \$51,250	Total: \$530,000	
Prin. Invest.: B TURNER			
Tech. Officer: GSFC/A JANETOS			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 5 8559</b>	<b>CLARK UNIVERSITY</b>	<b>5378</b>	
PIXELING THE SOCIAL USING REMOTELY SENSED INFORMATION IN			
SOCIAL SCIENCE MODELS			
07/08/1999 - 06/30/2001	FY00: \$114,513	Total: \$227,451	
Prin. Invest.: J GEOGHEGAN			
Tech. Officer: GSFC/M Y WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 97</b>	<b>CLARK UNIVERSITY</b>	<b>5379</b>	
INTEGRATED ASSESSMENT AND PROJECTION OF LAND-USE/ COVER			
CHANGE IN THE SOUTHERN YUCATAN PENINSULAR			
08/24/1999 - 08/31/2001	FY00: \$22,000	Total: \$44,000	
Prin. Invest.: B L TURNER, S MANSON			
Tech. Officer: GSFC/M WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 30032</b>	<b>CLARK UNIVERSITY</b>	<b>5380</b>	
WEST SIBERIAN PEATLAND DYNAMICS IN RELATION TO THE			
10/23/1996 - 05/31/2000	FY00: \$0	Total: \$66,000	
Prin. Invest.: S HERWITZ			
Tech. Officer: GSFC/M WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 30061</b>	<b>CLARK UNIVERSITY</b>	<b>5381</b>	
DIAGNOSIS OF SPATIAL AND TEMPORAL PATTERNS OF DRY LAND-AT-			
MOSPHERE WATER EXCHANGE IN THE TROPICAL SAV			
09/10/1997 - 08/31/2001	FY00: \$0	Total: \$66,000	
Prin. Invest.: L LEWIS			
Tech. Officer: GSFC/M Y WEI			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NGT 5 30129</b>	<b>CLARK UNIVERSITY</b>	<b>5382</b>	
IDENTIFYING THE BIOPHYSICAL & HUMAN DIMENSIONS OF LAND			
DEGRADATION IN THE SEMI-ARID KAROO, SOUTH AFR			
10/08/1997 - 08/31/2000	FY00: \$0	Total: \$66,000	
Prin. Invest.: B TURNER			
Tech. Officer: GSFC/G ASRAR			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NGT 5 30147</b>	<b>CLARK UNIVERSITY</b>	<b>5383</b>	
IDENTIFYING THE LAND-MANAGEMENT INSTITUTIONS AND LANDSCAPE			
PATTERNS GOVERNING SAVANNA FIRE REGI			
08/31/1998 - 08/31/2001	FY00: \$22,000	Total: \$66,000	
Prin. Invest.: B L TURNER, 11			
Tech. Officer: GSFC/M Y WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 30153</b>	<b>CLARK UNIVERSITY</b>	<b>5384</b>	
LINKING REMOTE SENSING AND SOCIAL ANALYSIS: CAUSAL INFLUENCES			
OF TRANSITIONING ECONOMIES ON			
08/28/1998 - 08/31/2001	FY00: \$22,000	Total: \$66,000	
Prin. Invest.: B L TURNER, 11, HAAN			
Tech. Officer: GSFC/M Y WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 30197</b>	<b>CLARK UNIVERSITY</b>	<b>5385</b>	
CONSERVATION IN THE SOUTHERN YUCATAN PENINSULAR REGION,			
MEXICO: LINKING LANDSCAPE ECOLOGY AND SOCIA			
08/18/1999 - 08/31/2001	FY00: \$22,000	Total: \$44,000	
Prin. Invest.: B L TURNER, 11			
Tech. Officer: GSFC/M WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 30217</b>	<b>CLARK UNIVERSITY</b>	<b>5386</b>	
SOCIALIZING MIOMBO GEOLOGY: CHANGE IN WOODLAND USE AND ITS			
MEANING FOR SUSTAINABLE LIVELIHOODS/STUD			
08/24/1999 - 08/31/2001	FY00: \$22,000	Total: \$44,000	
Prin. Invest.: B L TURNER			
Tech. Officer: GSFC/M WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 8 1212</b>	<b>HAMPSHIRE COLLEGE</b>	<b>5387</b>	
ENERGETIC S-RAY IMAGING SURVEY TELESCOPE			
10/06/1995 - 09/30/1998	FY00: -\$106	Total: \$111,103	
Prin. Invest.: J E GRINDLAY			
Tech. Officer: MSFC/M NEIN			
CASE Category: 41 - AERONAUTICAL ENGR			
<b>NAG 1 1909</b>	<b>HARVARD UNIVERSITY</b>	<b>5388</b>	
THREE-DIMENSIONAL STUDY OF THE FACTORS CONTROLLING THE			
DISTRIBUTION OF OZONE AND RELATED SPECIES IN			
04/01/1997 - 03/31/2000	FY00: \$61,001	Total: \$705,001	
Prin. Invest.: D J JACOB			
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
<b>NAG 1 2007</b>	<b>HARVARD UNIVERSITY</b>	<b>5389</b>	
IN-SITU DETECTION OF OH, HO <sub>2</sub> , ClO, BRO, NO <sub>2</sub> , ClONO <sub>2</sub> , H <sub>2</sub> O, AND O <sub>3</sub>			
FROM THE ER-2			
02/18/1998 - 12/31/2000	FY00: \$2,054,046	Total: \$5,928,960	
Prin. Invest.: J G ANDERSON			
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
<b>NAG 1 2025</b>	<b>HARVARD UNIVERSITY</b>	<b>5390</b>	
ANALYSIS OF INTERANNUAL AND LONG TERM VARIATIONS OF STRATO-			
SPHERIC TRANSPORT OF OZONE AND DEVELOP-			
03/19/1998 - 01/31/2001	FY00: \$105,000	Total: \$345,000	
Prin. Invest.: S C WOFSY			
Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
<b>NAG 1 2126</b>	<b>HARVARD UNIVERSITY</b>	<b>5391</b>	
ANALYSIS AND MODELING OF PEM-TROPICS (B) DATA MY 1/3			
02/02/1999 - 12/31/2001	FY00: \$162,000	Total: \$328,000	
Prin. Invest.: D J JACOB, J A LOGAN			
Tech. Officer: LARC/J RAPER			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
<b>NAG 1 2307</b>	<b>HARVARD UNIVERSITY</b>	<b>5392</b>	
GLOBAL THREE-DIMENSIONAL MODELING STUDIES OF TROPOSPHERIC			
OZONE			
06/28/2000 - 03/31/2003	FY00: \$270,000	Total: \$270,000	
Prin. Invest.: D J JACOB			
Tech. Officer: LARC/G L MADDREA, HQ/P DE COLA			
CASE Category: 31 - ATMOSPHERIC SCIENCE			

<b>NAG 1 2328</b>	<b>HARVARD UNIVERSITY</b>	<b>5393</b>	<b>NAG 3 2381</b>	<b>HARVARD UNIVERSITY</b>	<b>5401</b>
ANALYSIS OF ASIAN OUTFLOW OVER THE PACIFIC USING OBSERVATIONS FROM TRACE-P, NRA 00-OES-01			FABRICATION OF PHOTONIC STRUCTURE WITH COLLOIDAL ENGINEERING		
09/20/2000 - 06/30/2003	FY00: \$108,590	Total: \$108,590	04/07/2000 - 11/30/2003	FY00: \$60,000	Total: \$60,000
Prin. Invest.: D J JACOB			Prin. Invest.: D A WHITE		
Tech. Officer: LARC/J L RAPER, SR			Tech. Officer: GRC/F P CHIARAMONTE		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 49 - ENGINEERING, OTHER		
<b>NAG 2 1100</b>	<b>HARVARD UNIVERSITY</b>	<b>5394</b>	<b>NAG 5 3085</b>	<b>HARVARD UNIVERSITY</b>	<b>5402</b>
PHOTOCHEMISTRY OF THE UPPER TROPOSPHERE & LOWERMOST STRATOSPHERE AT NORTHERN MIDLATITUDES, & THE....			GAS DYNAMICS AND THE FORMATION OF GALAXIES AND QUASARS		
01/09/1997 - 01/31/2000	FY00: \$0	Total: \$302,305	10/05/1995 - 10/14/1998	FY00: -\$17	Total: \$239,983
Prin. Invest.: D J JACOB			Prin. Invest.: A LOEB		
Tech. Officer: ARC/E P CONDON			Tech. Officer: GSFC/D WEST		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 11 - ASTRONOMY		
<b>NAG 2 1300</b>	<b>HARVARD UNIVERSITY</b>	<b>5395</b>	<b>NAG 5 3516</b>	<b>HARVARD UNIVERSITY</b>	<b>5403</b>
FREE RADICALS & REACTIVE INTERMEDIATES FOR THE SAGE III OZONE LOSS & VALIDATION EXPERIMENT SOLVE MI			A GENERIC MODEL FOR GAMMA RAY BURSTS: THEORY AND D		
03/09/1999 - 11/30/2000	FY00: \$221,835	Total: \$519,444	11/13/1996 - 11/14/1999	FY00: -\$8	Total: \$24,992
Prin. Invest.: J G ANDERSON			Prin. Invest.: R NARAYAN		
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND			Tech. Officer: GSFC/J P NORRIS		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 11 - ASTRONOMY		
<b>NAG 2 1304</b>	<b>HARVARD UNIVERSITY</b>	<b>5396</b>	<b>NAG 5 3553</b>	<b>HARVARD UNIVERSITY</b>	<b>5404</b>
IN SITU MEASUREMENT OF CONCENTRATION OF ATMOSPHERIC CO2 IN THE SAGE-2 OZONE LOSS &..... BALLOONMEAS			AN INVESTIGATION OF THE COUPLING BETWEEN TROPOSPHERIC OZONE, SULFATE AEROSOLS AND CLIMATE.....		
03/19/1999 - 02/28/2001	FY00: \$141,500	Total: \$309,500	12/05/1996 - 08/31/2000	FY00: \$15,000	Total: \$990,000
Prin. Invest.: S C WOFSY			Prin. Invest.: D JACOB		
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND			Tech. Officer: GSFC/D RIND		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 11 - ASTRONOMY		
<b>NAG 2 1310</b>	<b>HARVARD UNIVERSITY</b>	<b>5397</b>	<b>NAG 5 3564</b>	<b>HARVARD UNIVERSITY</b>	<b>5405</b>
IN SITU MEASUREMENT OF CONCENTRATION OF ATMOSPHERIC CO2 IN THE SAGE-3 OZONE LOSS & VALIDATION EXPER			MAPPING MAGNETIC FIELDS IN THE ISM		
03/19/1999 - 12/31/2000	FY00: \$169,600	Total: \$317,500	01/14/1997 - 01/14/1999	FY00: -\$4,446	Total: \$43,554
Prin. Invest.: S C WOFSY			Prin. Invest.: A GOODMAN, I LUU		
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND			Tech. Officer: GSFC/D K WEST		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 11 - ASTRONOMY		
<b>NAG 2 1417</b>	<b>HARVARD UNIVERSITY</b>	<b>5398</b>	<b>NAG 5 3645</b>	<b>HARVARD UNIVERSITY</b>	<b>5406</b>
BIOMECHANICS OF ARABIDOPSIS THALIANA WAVY ROOT DEVELOPMENT			EVOLUTION OF PROTEROZOIC MICROORGANISMS AND ENVIRONMENT		
07/11/2000 - 06/30/2001	FY00: \$68,869	Total: \$68,869	03/05/1997 - 11/30/2000	FY00: \$93,446	Total: \$353,808
Prin. Invest.: N M HOLBROOK			Prin. Invest.: D H KNOLL		
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY			Tech. Officer: GSFC/M MEYER		
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)			CASE Category: 32 - GEOLOGICAL SCIENCE		
<b>NAG 3 2284</b>	<b>HARVARD UNIVERSITY</b>	<b>5399</b>	<b>NAG 5 3709</b>	<b>HARVARD UNIVERSITY</b>	<b>5407</b>
PHYSICS OF COLLOIDS IN SPACE PHYSICS OF COLLOIDS IN SPACE			DEVELOPMENT OF AN ULTRA SENSITIVE FAR INFRARED REFRIGERATOR INTEGRATED ON A SINGLE CHIP		
08/02/1999 - 06/30/2004	FY00: \$350,000	Total: \$453,000	02/12/1997 - 08/31/1999	FY00: \$0	Total: \$300,000
Prin. Invest.: D WEITZ			Prin. Invest.: M NAHUM		
Tech. Officer: GRC/B S SINGH			Tech. Officer: GSFC/D HOLLAND		
CASE Category: 13 - PHYSICS			CASE Category: 11 - ASTRONOMY		
<b>NAG 3 2376</b>	<b>HARVARD UNIVERSITY</b>	<b>5400</b>	<b>NAG 5 3808</b>	<b>HARVARD UNIVERSITY</b>	<b>5408</b>
MICROGRAVITY DRIVEN INSTABILITIES IN GAS-FLUIDIZED BEDS			STUDIES OF BATSE TRANSIENTS AND BLACK HOLE X-RAY B HARD X-RAY EMISSION FROM X-RAY BURSTERS \$7017.00		
03/27/2000 - 11/30/2003	FY00: \$30,000	Total: \$30,000	12/14/1996 - 10/31/1999	FY00: \$0	Total: \$31,871
Prin. Invest.: D A WEITZ			Prin. Invest.: J E GRINDLAY		
Tech. Officer: GRC/B MOTIL			Tech. Officer: GSFC/J P NORRIS		
CASE Category: 49 - ENGINEERING, OTHER			CASE Category: 11 - ASTRONOMY		

<b>NAG 5 4053</b>	<b>HARVARD UNIVERSITY</b>	<b>5409</b>	
WHERE DOES THE POWER LAW BREAK IN X-RAY BUSTERS?			
03/11/1997 - 03/14/1999	FY00: -\$1,361	Total: \$21,739	
Prin. Invest.: J E GRINDLAY			
Tech. Officer: GSFC/J SWANK			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 4062</b>	<b>HARVARD UNIVERSITY</b>	<b>5410</b>	
IS THERE A COSMOLOGICAL CONSTANT?			
03/18/1997 - 09/30/1999	FY00: -\$2,483	Total: \$64,435	
Prin. Invest.: C S KOCHANNEK			
Tech. Officer: GSFC/D K WEST			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 4132</b>	<b>HARVARD UNIVERSITY</b>	<b>5411</b>	
A SEARCH FOR 23RD-MAGNITUDE KUIPER BELT COMETS			
03/13/1997 - 05/31/2000	FY00: \$0	Total: \$70,000	
Prin. Invest.: D X SASSELOV			
Tech. Officer: GSFC/D NAVA			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 4174</b>	<b>HARVARD UNIVERSITY</b>	<b>5412</b>	
PALEOSOLS AS INDICATORS OF ATMOSPHERIC EVOLUTION			
03/24/1997 - 09/30/2000	FY00: \$114,924	Total: \$465,967	
Prin. Invest.: D D HOLLAND			
Tech. Officer: GSFC/M A MEYER			
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)			
<b>NAG 5 4216</b>	<b>HARVARD UNIVERSITY</b>	<b>5413</b>	
CCD PHOTOMETRY STUDY OF KUIPER BELT OBJECTS			
04/09/1997 - 02/29/2000	FY00: \$0	Total: \$79,417	
Prin. Invest.: D X SASSELOV			
Tech. Officer: GSFC/J BERGSTRALH			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 4302</b>	<b>HARVARD UNIVERSITY</b>	<b>5414</b>	
CROSS SECTION MEASUREMENTS FOR SOLAR COSMIC RAY ST			
04/12/1997 - 06/30/2001	FY00: \$0	Total: \$82,034	
Prin. Invest.: D SISTERSON			
Tech. Officer: HQ/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 4348</b>	<b>HARVARD UNIVERSITY</b>	<b>5415</b>	
ABSOLUTE TRANSITION PROBABILITIES FOR LINES IN THE ASTROPHYSICAL ATOMS, MOLECULES AND IONS			
04/17/1997 - 12/31/2000	FY00: \$85,722	Total: \$336,197	
Prin. Invest.: W H PARKINSON			
Tech. Officer: GSFC/H HASAN			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 4430</b>	<b>HARVARD UNIVERSITY</b>	<b>5416</b>	
ISOTOPIC STUDIES OF SOLAR SYSTEMS ORIGINS			
05/06/1997 - 02/28/2001	FY00: \$40,000	Total: \$133,000	
Prin. Invest.: D B JACOBSEN			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 4690</b>	<b>HARVARD UNIVERSITY</b>	<b>5417</b>	
THEORETICAL RESEARCH IN PLANETARY PHYSICS			
06/26/1997 - 06/30/2000	FY00: \$0	Total: \$138,000	
Prin. Invest.: D CAMERON			
Tech. Officer: GSFC/D F NAVA			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 4713</b>	<b>HARVARD UNIVERSITY</b>	<b>5418</b>	
CRYSTAL-LIQUID DENSITY INVERSIONS IN LUNAR AND PLA			
06/17/1997 - 06/30/2000	FY00: \$0	Total: \$70,000	
Prin. Invest.: D G AGEE			
Tech. Officer: GSFC/D NAVA			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 4720</b>	<b>HARVARD UNIVERSITY</b>	<b>5419</b>	
TUNGSTEN ISOTOPE STUDIES OF METEORITES			
06/17/1997 - 03/31/2001	FY00: \$0	Total: \$75,000	
Prin. Invest.: D B JACOBSEN			
Tech. Officer: GSFC/D NAVA			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 5103</b>	<b>HARVARD UNIVERSITY</b>	<b>5420</b>	
DEVELOPMENT OF EXITE3, IMAGING DETECTORS AND A LONG-DURATION BALLOON GONDOLA			
02/11/1997 - 12/31/2000	FY00: \$0	Total: \$616,629	
Prin. Invest.: J E GRINDLAY			
Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT			
CASE Category: 13 - PHYSICS			
<b>NAG 5 5279</b>	<b>HARVARD UNIVERSITY</b>	<b>5421</b>	
DEVELOPMENT OF A HARD X-RAY IMAGING DETECTOR AND SURVEY TELESCOPE (EXITE 3) FOR AN LDB MISSION			
05/31/2000 - 05/18/2002	FY00: \$199,956	Total: \$199,956	
Prin. Invest.: G GRINDLAY			
Tech. Officer: GSFC/B A MERRITT			
CASE Category: 13 - PHYSICS			
<b>NAG 5 6136</b>	<b>HARVARD UNIVERSITY</b>	<b>5422</b>	
EDDY CORRELATION FLUX MEASUREMENTS OF CO2, O3 AND			
09/11/1997 - 04/30/1999	FY00: \$0	Total: \$330,000	
Prin. Invest.: D WOFSY			
Tech. Officer: HQ/D WICKLAND			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 5 6554</b>	<b>HARVARD UNIVERSITY</b>	<b>5423</b>	
LABORATORY STUDIES IN UV AND EUV SOLAR PHYSICS			
10/24/1997 - 05/31/2000	FY00: \$0	Total: \$290,231	
Prin. Invest.: D H PARKINSON			
Tech. Officer: GSFC/W J WAGNER			
CASE Category: 59 - LIFE SCIENCE, OTHER			
<b>NAG 5 6569</b>	<b>HARVARD UNIVERSITY</b>	<b>5424</b>	
WORKSHOP ON LABORATORY ASTROPHYSICS			
11/19/1997 - 12/31/1998	FY00: -\$2,390	Total: \$16,610	
Prin. Invest.: W H PARKINSON			
Tech. Officer: GSFC/H HASAN			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 6603</b>	<b>HARVARD UNIVERSITY</b>	<b>5425</b>	
PHOTOMETRIC STUDIES OF KUIPER BELT OBJECTS			
12/16/1997 - 02/28/1999	FY00: \$0	Total: \$639	
Prin. Invest.: J LUU			
Tech. Officer: GSFC/T MORGAN			
CASE Category: 11 - ASTRONOMY			

**NAG 5 7039 HARVARD UNIVERSITY 5426**  
 STRUCTURE AND EVOLUTION OF X-RAY CLUSTERS: THEORY AND IM-  
 PPLICATIONS FOR AXAF -ATP  
 02/25/1998 - 02/14/2001 FY00: \$91,309 Total: \$269,824  
*Prin. Invest.:* A LOEB  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7201 HARVARD UNIVERSITY 5427**  
 GLOBAL THREE-DIMENSIONAL MODELING OF THE EFFECTS OF  
 SUBSONIC AIRCRAFT ON OZONE  
 03/24/1998 - 09/30/2000 FY00: \$176,343 Total: \$495,343  
*Prin. Invest.:* D JACOB  
*Tech. Officer:* GSFC/R W STEWART  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7393 HARVARD UNIVERSITY 5428**  
 STUDIES OF HARD TAILS IN X-RAY BURSTERS: KS1731-26 0 AND  
 SLX1732-304  
 05/12/1998 - 05/14/2000 FY00: \$0 Total: \$14,850  
*Prin. Invest.:* J GRINDLANDY  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7403 HARVARD UNIVERSITY 5429**  
 ARE GS1826 AND SLX1735-269 BLACK HOLE OR NEUTRON STAR  
 SYSTEMS  
 05/13/1998 - 05/14/2000 FY00: \$0 Total: \$14,850  
*Prin. Invest.:* J GRINDLANDY  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7534 HARVARD UNIVERSITY 5430**  
 LONG-TERM NET ECOSYSTEM EXCHANGE AT THE BOREAS NORTHERN  
 OLD BLACKSPRUCE SITE: MECHANISMS FOR  
 06/11/1998 - 05/31/2001 FY00: \$495,593 Total: \$946,247  
*Prin. Invest.:* S C WORSY  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7610 HARVARD UNIVERSITY 5431**  
 INVESTIGATION OF STAR FORMATION PROCESSES  
 07/31/1998 - 07/31/2000 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* A CAMERON  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7616 HARVARD UNIVERSITY 5432**  
 FUNDING FOR 'INVESTIGATIONS OF THE GEODYNAMO USING SATELLITE  
 MAGNETIC FIELD OBSERVATIONS' (SENH98-0  
 07/22/1998 - 01/14/2001 FY00: \$75,000 Total: \$187,000  
*Prin. Invest.:* J BLOXHAM  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7768 HARVARD UNIVERSITY 5433**  
 STUDYING THE SUPERNOVA HISTORY OF THE UNIVERSE WITH THE NEXT  
 GENERATION SPACE TELESCOPE  
 01/11/1999 - 01/14/2001 FY00: \$28,340 Total: \$56,348  
*Prin. Invest.:* R KIRSHNER  
*Tech. Officer:* GSFC/E SMITH  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7859 HARVARD UNIVERSITY 5434**  
 PHOTOABSORPTION CROSS SECTIONS AND THEIR TEMPERATURE DE-  
 PENDENCE FOR CO2 AND H2O IN THE 170 NM TO 20  
 01/06/1999 - 12/31/2000 FY00: \$58,875 Total: \$118,875  
*Prin. Invest.:* W H PARKINSON  
*Tech. Officer:* GSFC/R BEEBE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8467 HARVARD UNIVERSITY 5435**  
 STUDIES OF STAR AND PLANETARY SYSTEM FORMATION  
 05/03/1999 - 04/30/2000 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* A W CAMERON  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8727 HARVARD UNIVERSITY 5436**  
 ORIGIN OF QUASAR ABSORPTION LINES IN A COSMOLOGICAL CONTEXT  
 08/10/1999 - 12/31/2000 FY00: \$40,000 Total: \$69,706  
*Prin. Invest.:* L E HERNQUIST  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8779 HARVARD UNIVERSITY 5437**  
 CLOUDS AND WATER VAPOR IN THE CLIMATE SYSTEM  
 08/30/1999 - 02/28/2001 FY00: \$678,965 Total: \$898,876  
*Prin. Invest.:* J ANDERSON  
*Tech. Officer:* GSFC/R CURRAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9019 HARVARD UNIVERSITY 5438**  
 1. H2 IN HH2: FLUORESCENCE OR COLLISIONS? - FUSE 2. NON-RADIA-  
 TIVE SHOCKS IN THE CYGNUS LOOP - FUSE  
 02/02/2000 - 01/31/2001 FY00: \$61,100 Total: \$61,100  
*Prin. Invest.:* J C RAYMOND  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9275 HARVARD UNIVERSITY 5439**  
 STUDY OF STAR AND PLANETARY SYSTEM FORMATION  
 03/21/2000 - 05/14/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* A CAMERON  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9521 HARVARD UNIVERSITY 5440**  
 MEASUREMENT & ANALYSIS OF THE SPATIAL & TEMPORAL VARIABILITY OF  
 OROGRAPHIC PRECIPITATION IN THE  
 04/26/2000 - 10/31/2000 FY00: \$72,860 Total: \$72,860  
*Prin. Invest.:* A P BARROS  
*Tech. Officer:* GSFC/R LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

<b>NAG 5 9571</b>	<b>HARVARD UNIVERSITY</b>	<b>5441</b>	
ISOTOPIC STUDIES OF THE FORMATION & EARLY DIFFERENTIATION OF PLANETS			
05/08/2000 - 04/30/2001	FY00: \$15,000	Total: \$15,000	
Prin. Invest.: S B JACOBSEN			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 9643</b>	<b>HARVARD UNIVERSITY</b>	<b>5442</b>	
CHEMISTRY, AEROSOLS, AND CLIMATE: TROPOSPHERIC UNIFIED SIMULATION (CACTUS)			
06/28/2000 - 05/31/2001	FY00: \$317,000	Total: \$317,000	
Prin. Invest.: D J JACOB			
Tech. Officer: GSFC/P DECOLA			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 5 9823</b>	<b>HARVARD UNIVERSITY</b>	<b>5443</b>	
MEASUREMENT, ANALYSIS, & MODELING OF THE SPATIAL & TEMPORAL VARIABILITY OF OROGRAPHIC PRECIP.			
07/24/2000 - 11/30/2000	FY00: \$111,420	Total: \$111,420	
Prin. Invest.: A P BARROS			
Tech. Officer: GSFC/R J LAWRENCE			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
<b>NAG 5 10046</b>	<b>HARVARD UNIVERSITY</b>	<b>5444</b>	
XMM OBSERVATIONS OF LARGE CORE CLUSTERS			
09/28/2000 - 09/30/2001	FY00: \$8,100	Total: \$8,100	
Prin. Invest.: J E GRINDLAY			
Tech. Officer: GSFC/R MUSHOTZKY			
CASE Category: 11 - ASTRONOMY			
<b>NAG 8 1256</b>	<b>HARVARD UNIVERSITY</b>	<b>5445</b>	
KINETICS OF NUCLEATION AND GROWTH FROM UNDERCOOLED MELTS			
05/24/1996 - 05/22/2001	FY00: \$87,500	Total: \$700,000	
Prin. Invest.: M J AZIZ, F SPAEPEN			
Tech. Officer: MSFC/P DOTY			
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			
<b>NAG 8 1680</b>	<b>HARVARD UNIVERSITY</b>	<b>5446</b>	
"GLASS FORMATION, NUCLEATION AND DIFFUSION IN METALLIC MELTS"			
06/06/2000 - 03/11/2003	FY00: \$45,000	Total: \$45,000	
Prin. Invest.: F A SPAEPEN, M J AZIZ			
Tech. Officer: MSFC/P DOTY			
CASE Category: 47 - METAL & MATERIALS ENGR			
<b>NAS 1 18946</b>	<b>HARVARD UNIVERSITY</b>	<b>5447</b>	
SAGE III SCIENCE SUPPORT; P.I. - WOFSY			
11/28/1989 - 01/31/2005	FY00: \$73,000	Total: \$423,930	
Prin. Invest.: S C WOFSY			
Tech. Officer: LARC/G MADDREA			
CASE Category: 19 - PHYSICAL SCIENCE, OTHER			
<b>NCC 2 897</b>	<b>HARVARD UNIVERSITY</b>	<b>5448</b>	
LIGHTWEIGHT HIGH-PRECISION, FAST RESPONSE INSTRUMENT FOR AIRBORNE CO2 MEASUREMENTS FOR UAVS			
03/22/1995 - 12/31/1999	FY00: \$0	Total: \$1,054,804	
Prin. Invest.: S C WOFSY			
Tech. Officer: ARC/S S WEGENER			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
<b>NCC 2 1053</b>	<b>HARVARD UNIVERSITY</b>	<b>5449</b>	
THE PLANETARY CONTEXT OF BIOLOGICAL EVOLUTION			
09/14/1998 - 06/30/2003	FY00: \$985,700	Total: \$1,465,505	
Prin. Invest.: A H KNOLL			
Tech. Officer: ARC/R A GRYMES, ARC/W W DOLCI			
CASE Category: 59 - LIFE SCIENCE, OTHER			
<b>NCC 5 341</b>	<b>HARVARD UNIVERSITY</b>	<b>5450</b>	
NET ECOSYSTEM EXCHANGE OF CO2 AND H2O FROM PRIMARY TROPICAL FOREST IN CENTRAL AMAZONIA			
07/07/1998 - 12/31/2000	FY00: \$371,000	Total: \$1,067,000	
Prin. Invest.: S C WOFSY			
Tech. Officer: GSFC/D W DEERING			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 101</b>	<b>HARVARD UNIVERSITY</b>	<b>5451</b>	
NATURAL SELECTION IN ELEMENTS OF PHOTOSYNTHESIS STUDENT: LUCAS MIX			
05/25/2000 - 08/31/2001	FY00: \$22,000	Total: \$22,000	
Prin. Invest.: C CAVANAUGH			
Tech. Officer: GSFC/G A SOFFEN			
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)			
<b>NGT 5 30002</b>	<b>HARVARD UNIVERSITY</b>	<b>5452</b>	
EFFECTS OF ELEVATED CO2 AND NITROGEN DEPOSITION ON AND COMMUNITY COMPOSITION IN A MIXED CONIFER-HARD			
10/11/1996 - 08/31/1999	FY00: \$0	Total: \$66,000	
Prin. Invest.: F BAZZAZ			
Tech. Officer: GSFC/G ASRAR			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 30144</b>	<b>HARVARD UNIVERSITY</b>	<b>5453</b>	
THE EFFECTS OF ADJACENCY ARRANGEMENTS ON PLANT DIVERSITY IN THE ASPEN PARKLAND ALBERTA			
08/27/1998 - 08/31/2000	FY00: \$0	Total: \$44,000	
Prin. Invest.: R FORMAN, ALEXANDER			
Tech. Officer: GSFC/M Y WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 30152</b>	<b>HARVARD UNIVERSITY</b>	<b>5454</b>	
BIOLOGICAL AND PHYSICAL CONTROLS ON EVAPOTRANSPIRATION IN A MID-LATITUDE FOREST			
08/28/1998 - 08/31/2001	FY00: \$22,000	Total: \$66,000	
Prin. Invest.: S C WOFSY, LIN			
Tech. Officer: GSFC/M Y WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 30205</b>	<b>HARVARD UNIVERSITY</b>	<b>5455</b>	
NITRIC ACID AND NITROGEN DIOXIDE FLUX MEASUREMENTS OVER A NORTH-AMERICAN FOREST/STUDENT: CASSANDRA H			
08/19/1999 - 08/31/2001	FY00: \$22,000	Total: \$44,000	
Prin. Invest.: S C WOFSY			
Tech. Officer: GSFC/M Y WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			

**NGT 5 30336 HARVARD UNIVERSITY 5456**  
 LABORATORY STUDIES OF TROPOSPHERIC SOURCES & SINKS OF THE  
 HYDROXYL RADICAL: OXIDATION OF ALKENE  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J ANDERSON  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50020 HARVARD UNIVERSITY 5457**  
 OBSERVATIONS AND INSTRUMENTATION DEVELOPMENT TO ST UTRON  
 STARS  
 07/14/1997 - 06/30/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: J GRINDLEY  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50028 HARVARD UNIVERSITY 5458**  
 A COMBINED X-RAY AND GRAVITATIONAL LENSING DETERMINERS OF  
 GALAXIES  
 07/14/1997 - 08/31/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: L HERNQUIST, FOX  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50244 HARVARD UNIVERSITY 5459**  
 A KINEMATIC SURVEY OF NEARBY FIELD GALAXIES (STUDENT: SHEILA  
 KANNAPPAN)  
 06/02/1999 - 06/30/2001 FY00: \$11,000 Total: \$33,000  
 Prin. Invest.: R KIRSHNER  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50258 HARVARD UNIVERSITY 5460**  
 STUDIES IN LOW TEMPERATURE ATOMIC PHYSICS USING A CRYOGENIC  
 HYDROGEN MASER STUDENT: MARC HUMPHR  
 07/07/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: W H PARKINSON  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT10 52601 HARVARD UNIVERSITY 5461**  
 GRADUATE STUDENT RESEARCH GRANT  
 06/05/1995 - 06/30/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: M J HULLER  
 Tech. Officer: KSC/J SAGER  
 CASE Category: 55 - AGRICULTURE

**NAG 1 991 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5462**  
 COMPOSITE FUSELAGE TECHNOLOGY  
 04/10/1989 - 07/31/1999 FY00: -\$282 Total: \$999,356  
 Prin. Invest.: P A LAGACE, M J GRAVES  
 Tech. Officer: LARC/J H STARNES, LARC/M J SHUART  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1512 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5463**  
 SUCTION AND BLOWING STRATEGIES FOR REDUCTION OF FAN NOISE  
 06/25/1993 - 09/30/1998 FY00: -\$1 Total: \$939,639  
 Prin. Invest.: I A WAITZ, K U INGARD, A H EPSTEIN  
 Tech. Officer: LARC/C H GERHOLD  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1587 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5464**  
 FINITE ELEMENT METHODS FOR THE SIMULATION OF HYPERSONIC  
 FLOWS  
 01/31/1994 - 03/31/1999 FY00: -\$5,015 Total: \$349,437  
 Prin. Invest.: J PERAIRE  
 Tech. Officer: LARC/K S BEY, LARC/A R WIETING  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1758 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5465**  
 PHYSICAL PROCESSES GOVERNING ATMOSPHERIC TRACE CONSTITU-  
 ENTS MEASURED FROM AIRCRAFT IN PEM-TROPICS  
 09/25/1995 - 09/30/1999 FY00: -\$1 Total: \$641,420  
 Prin. Invest.: D E NEWELL  
 Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1839 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5466**  
 ADVANCED SPACECRAFT ARCHITECTURAL CONCEPTS (ASAC) MY 1/2  
 06/28/1996 - 01/15/1999 FY00: -\$1 Total: \$235,648  
 Prin. Invest.: D W MILLER  
 Tech. Officer: LARC/B R HANKS  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 1 1857 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5467**  
 FUNDAMENTAL ISSUES INVOLVED WITH MODE AWARENESS OF  
 ADVANCED AUTOFLIGHT SYSTEMS  
 07/24/1996 - 06/30/2000 FY00: \$15,719 Total: \$293,310  
 Prin. Invest.: R J HANSMAN  
 Tech. Officer: LARC/M T PALMER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1900 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5468**  
 TRACE GAS TRANSPORT IN THE TROPOSPHERE AND THE INTERPRETA-  
 TION OF IN SITU CONCENTRATION MEASURE.  
 02/10/1997 - 02/09/2000 FY00: \$1 Total: \$218,001  
 Prin. Invest.: R A PLUMB  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1901 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5469**  
 USE OF MAPS, GTE AND UARS-MLS DATA IN UNDERSTANDING TROPO-  
 SPHERIC PROCESSES CRITICAL TO MODEL DELV.  
 02/10/1997 - 02/09/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: R E NEWELL  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1974 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5470**  
 INVEST OF AIRBORNE ALERTING SYSTEMS FOR CLOSELY- SPACED  
 PARALLEL RUNWAY APPROACH.NLPN 97-820  
 10/22/1997 - 03/31/1999 FY00: -\$2,975 Total: \$75,044  
 Prin. Invest.: J K KUCHAR, NONE  
 Tech. Officer: LARC/M C WALLER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1978 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5471**  
 FAST BOUND METHODS FOR LARGE SCALE SIMULATION WITH APPLICATION FOR ENGINEERING OPTIMIZATION  
 12/10/1997 - 12/09/2000 FY00: \$110,000 Total: \$390,000  
 Prin. Invest.: A T PATERN, J PERAIRE  
 Tech. Officer: LARC/T A TANG, LARC/N M ALEXANDRIA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2027 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5472**  
 LARGE-SCALE STRATOSPHERIC TRANSPORT PROCESSES MY 1/3  
 03/20/1998 - 02/28/2001 FY00: \$150,501 Total: \$414,501  
 Prin. Invest.: R A PLUMB  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2122 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5473**  
 UNSTRUCTURED MESH METHODS FOR THE SIMULATION OF HYPERSONIC FLOW  
 12/23/1998 - 09/30/2001 FY00: \$89,521 Total: \$190,765  
 Prin. Invest.: J PERAIRE  
 Tech. Officer: LARC/K L BIBB, LARC/K J WEILMUNSTER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2152 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5474**  
 STUDIES OF TRACE GAS CHEMICAL CYCLES USING INVERSE METHODS & GLOBAL CHEMICAL TRANSPORT MODELS  
 02/25/1999 - 12/31/2001 FY00: \$143,000 Total: \$280,167  
 Prin. Invest.: R G PRINN  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2173 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5475**  
 PHYS PROCESSES GOV'G ATMOSPHERIC TRACE CONSTITUENTS MEAS'D FROM A/C IN PEM-TROPICS-B (NRA-97-MTPE-04)  
 05/03/1999 - 02/28/2002 FY00: \$193,111 Total: \$445,111  
 Prin. Invest.: R E NEWELL  
 Tech. Officer: LARC/J L RAPER, LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2189 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5476**  
 ALERTG SYS EVAL METHODOLOGY FOR TRAJ CORRIDOR PERFORMANCE MONITORING W/APPLIC CLOSELY SPACED PARALLELS  
 04/28/1999 - 05/31/2000 FY00: \$0 Total: \$70,417  
 Prin. Invest.: J K KUCHAR  
 Tech. Officer: LARC/M C WALLER, LARC/T S ABBOTT  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2203 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5477**  
 TRACER EVOLUTION AT HIGHER LATITUDES IN WINTER (SOLVE)  
 06/17/1999 - 06/30/2001 FY00: \$1 Total: \$16,501  
 Prin. Invest.: R PLUMB  
 Tech. Officer: LARC/G MADDREA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2239 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5478**  
 REQUIREMENT ENGINEERING FOR SOFTWARE INTEGRITY AND SAFETY (NRA 98-LARC-8)  
 09/23/1999 - 09/30/2002 FY00: \$133,410 Total: \$186,343  
 Prin. Invest.: N LEVESON  
 Tech. Officer: LARC/D E ECKMARDT  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 1 2275 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5479**  
 DEVELOPMENT OF AN OUTPUT-BASED ADAPTIVE METHOD FOR MULTI-DIMENSIONAL EULER AND NAVIER STOKES SIMUL-  
 02/29/2000 - 12/31/2000 FY00: \$80,213 Total: \$80,213  
 Prin. Invest.: D L DARMOTAL  
 Tech. Officer: LARC/J L THOMAS/W K ANDERSON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2306 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5480**  
 USE OF GTE, MOZAIC, SONEX AND UARS-MLS DATA IN UNDERSTANDING TROPOSPHERIC CRITICAL TO MODEL DEV.  
 06/08/2000 - 03/31/2003 FY00: \$90,000 Total: \$90,000  
 Prin. Invest.: R E NEWELL  
 Tech. Officer: LARC/D L MADDREA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 716 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5481**  
 SITUATIONAL AWARENESS ISSUES IN THE IMPLEMENTATION OF DATALINK  
 06/26/1991 - 09/30/1999 FY00: -\$231 Total: \$1,100,087  
 Prin. Invest.: R J HANSMAN  
 Tech. Officer: ARC/K CORKER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 2 729 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5482**  
 MODELING INFORMATION PROCESSING IN FLIGHT MANAGEMENT  
 08/27/1991 - 06/30/2001 FY00: \$0 Total: \$994,962  
 Prin. Invest.: T B SHERIDAN  
 Tech. Officer: ARC/S C LOZITO, ARC/E J HARTZELL  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 2 855 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5483**  
 ARCHIVING OF PLANETARY RING DATA  
 07/16/1993 - 03/31/2000 FY00: \$5,000 Total: \$112,380  
 Prin. Invest.: J L ELLIOT  
 Tech. Officer: ARC/J N CUZZI  
 CASE Category: 11 - ASTRONOMY

**NAG 2 1111 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5484**  
 INVESTIGATION OF ALERT ZONE & DISPLAY CONCEPTS FOR FREE FLIGHT  
 02/14/1997 - 08/31/2000 FY00: \$40,501 Total: \$360,478  
 Prin. Invest.: J K KUCHAR  
 Tech. Officer: ARC/S C LOZITO  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1128 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5485**  
 DEPARTURES PLANNING AT BUSY AIRPORTS  
 05/09/1997 - 05/31/2000 FY00: \$40,000 Total: \$550,000  
 Prin. Invest.: A R ODONI, R J HANSMAN, E FERON  
 Tech. Officer: ARC/D R ISSACSON, ARC/S C ATKINS  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 2 1136 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5486**  
 SDSI IMPLEMENTATION  
 07/11/1997 - 11/30/2000 FY00: \$51,993 Total: \$153,149  
 Prin. Invest.: R L RIVEST  
 Tech. Officer: ARC/Y K LIU  
 CASE Category: 22 - COMPUTER SCIENCE

<p><b>NAG 2 1272 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5487</b>            APPLYING ATC AUTOMATION TO ADDRESS ENVIRONMENTAL CONSIDERATIONS            12/22/1998 - 05/31/2001 FY00: \$186,281 Total: \$317,527  <i>Prin. Invest.:</i> J P CLARKE  <i>Tech. Officer:</i> ARC/T J DAVIS/D R ISAACSON            CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 3 1845 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5495</b>            DYNAMICS OF THE MOLTEN CONTACT LINE            05/20/1996 - 05/19/2001 FY00: \$85,000 Total: \$520,000  <i>Prin. Invest.:</i> A A SONIN  <i>Tech. Officer:</i> GRC/M M HASAN            CASE Category: 13 - PHYSICS</p>
<p><b>NAG 2 1299 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5488</b>            HUMAN PERFORMANCE CONSIDERATIONS FOR SHARED INFORMATION IN            DATALINKED AIR TRAFFIC MANAGEMENT SYSTEM            03/03/1999 - 12/14/2000 FY00: \$104,356 Total: \$164,356  <i>Prin. Invest.:</i> R J HANSMAN  <i>Tech. Officer:</i> ARC/S C LOZITO            CASE Category: 69 - PSYCHOLOGY, OTHER</p>	<p><b>NAG 3 1879 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5496</b>            MODELING OF PULSED PLASMA THRUSTER PLUMES            05/22/1996 - 11/30/2000 FY00: \$78,000 Total: \$483,000  <i>Prin. Invest.:</i> J B HOWARD  <i>Tech. Officer:</i> GRC/J E BROOKER            CASE Category: 49 - ENGINEERING, OTHER</p>
<p><b>NAG 2 1338 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5489</b>            SOFTWARE DESIGN FOR AIR-TRAFFIC CONTROL            07/19/1999 - 07/14/2001 FY00: \$67,020 Total: \$100,530  <i>Prin. Invest.:</i> D N JACKSON, J CHAPIN  <i>Tech. Officer:</i> ARC/M M ESHOW, ARC/K Y TUNG-CATE            CASE Category: 22 - COMPUTER SCIENCE</p>	<p><b>NAG 3 1937 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5497</b>            A STUDY OF MICROFABRICATED LIQUID ROCKET MOTORS            08/05/1996 - 11/30/1999 FY00: -\$11,291 Total: \$438,626  <i>Prin. Invest.:</i> A H EPSTEIN, J L KERREBROCK  <i>Tech. Officer:</i> GRC/S J SCHNEIDER            CASE Category: 42 - ASTRONAUTICAL ENGR</p>
<p><b>NAG 2 1350 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5490</b>            EFFECT OF GROWTH STARVATION UNDER SIMULATED MICRO- GRAVITY            ON THE BACTERIAL STRESS &amp; SECONDARY METAB            07/21/1999 - 12/31/2000 FY00: \$214,295 Total: \$382,067  <i>Prin. Invest.:</i> A L DEMAINE  <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY            CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>	<p><b>NAG 3 2019 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5498</b>            A GEOMETRY BASED INFRA-STRUCTURE FOR COMPUTATIONAL ANALYSIS            03/05/1997 - 02/04/2001 FY00: \$140,261 Total: \$369,055  <i>Prin. Invest.:</i> R HAIMES  <i>Tech. Officer:</i> GRC/G J FOLLEN, GRC/C LAWRENCE            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 2 1388 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5491</b>            HYBRID ADAPTIVE METHODS FOR THE DEVELOPMENT OF MODEL-BASED            AUTONOMOUS ROBOTIC SYSTEMS            12/01/1999 - 11/30/2000 FY00: \$490,000 Total: \$490,000  <i>Prin. Invest.:</i> B C WILLIAMS  <i>Tech. Officer:</i> ARC/S LAU            CASE Category: 22 - COMPUTER SCIENCE</p>	<p><b>NAG 3 2051 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5499</b>            THREE DIMENSIONAL AERODYNAMIC INSTABILITIES IN MULTISTAGE            AXIAL COMPRESSORS            05/27/1997 - 07/31/2000 FY00: \$11,602 Total: \$162,744  <i>Prin. Invest.:</i> C S TAN  <i>Tech. Officer:</i> GRC/A K OWEN            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 2 1425 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5492</b>            MODELING &amp; ANALYSIS OF MULTIPLE ALERTING SYSTEM INTERACTIONS            07/26/2000 - 10/31/2000 FY00: \$60,000 Total: \$60,000  <i>Prin. Invest.:</i> J K KUCHAR  <i>Tech. Officer:</i> ARC/S C LOZITO            CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 3 2052 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5500</b>            IDENTIFICATION AND CONTROL OF ROTATING STALL MODES IN AXIAL            COMPRESSORS            05/27/1997 - 02/27/2001 FY00: \$196,585 Total: \$654,476  <i>Prin. Invest.:</i> J PADUANO  <i>Tech. Officer:</i> GRC/M BRIGHT            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 3 1640 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5493</b>            CHEMICAL INHIBITOR EFFECTS ON DIFFUSION FLAMES IN MICROGRAVITY            06/30/1994 - 03/31/1999 FY00: -\$8,051 Total: \$306,313  <i>Prin. Invest.:</i> S HOCHGREB, G T LINTERIS  <i>Tech. Officer:</i> GRC/H ROSS            CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NAG 3 2054 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5501</b>            IMPROVED MECHANISM-BASED LIFE PREDICTION MODELS            06/06/1997 - 05/31/1999 FY00: -\$363 Total: \$99,637  <i>Prin. Invest.:</i> H L MCMANUS  <i>Tech. Officer:</i> GRC/K J BOWLES            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 3 1664 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5494</b>            CHEMICAL PROCESSES IN THE TURBINE AND EXHAUST NOZZLE            09/19/1994 - 10/19/1998 FY00: -\$475 Total: \$635,495  <i>Prin. Invest.:</i> I A WALTZ, R C MIAKE-LYE  <i>Tech. Officer:</i> GRC/L S N, GRC/H L NGUYEN            CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NAG 3 2078 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5502</b>            AERODYNAMICS OF ADVANCED SUBSONIC TRANSPORT INTEGRATED FAN            BYPASS DUCT SYSTEM AND ITS DESIGN            12/18/1997 - 12/31/2000 FY00: \$0 Total: \$211,012  <i>Prin. Invest.:</i> C S TAN  <i>Prin. Invest.:</i> NONE  <i>Tech. Officer:</i> GRC/J J ADAMCZYK            CASE Category: 41 - AERONAUTICAL ENGR</p>



**NAG 3 2101 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5503**  
THREE-DIMENSIONAL AERODYNAMIC INSTABILITIES IN MULTISTAGE  
AXIAL COMPRESSORS  
12/23/1997 - 11/23/2000 FY00: \$50,001 Total: \$240,269  
Prin. Invest.: C S TAN  
Tech. Officer: GRC/K L SUDER  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2155 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5504**  
AN INTEROMETRIC INVESTIGATION OF CONTACT LINE DYNAMICS IN  
SPREADING POLYMER MELTS AND SOLUTIONS  
04/21/1998 - 01/19/2002 FY00: \$113,001 Total: \$275,000  
Prin. Invest.: G H MCKINLEY, NONE  
Tech. Officer: GRC/N R HALL  
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2178 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5505**  
INTEGRATED HUMAN CENTERED SYSTEMS ANALYSIS OF FUNCTIONAL  
REQUIREMENTS FOR COCKPIT ICING INFORMATION  
07/08/1998 - 10/30/2000 FY00: \$70,000 Total: \$152,639  
Prin. Invest.: R J HANSMAN  
Tech. Officer: GRC/A REEHORST  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2179 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5506**  
INTRA-ENGINE TRACE SPECIES CHEMISTRY  
06/30/1998 - 12/31/2000 FY00: \$180,742 Total: \$539,491  
Prin. Invest.: L WAITZ  
Tech. Officer: GRC/C C WEY  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2222 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5507**  
TRAILING EDGE BLOWING EXPERIMENTS TRAILING EDGE BLOWING  
EXPERIMENTS  
12/31/1998 - 12/03/1999 FY00: -\$27,320 Total: \$45,298  
Prin. Invest.: D A WAITZ  
Tech. Officer: GRC/E B FITE  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2320 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5508**  
AEROTHERMAL PROBABILISTIC DESIGN OF COMPRESSOR BLADES  
01/13/2000 - 01/05/2001 FY00: \$123,941 Total: \$123,941  
Prin. Invest.: D M DARMOFAL  
Tech. Officer: GRC/S PAI  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2321 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5509**  
CHARACTERIZATION OF AEROMECHANICS RESPONSE AND INSTABILITY  
IN FANS, COMPRESSORS, AND TURBINE BLADES  
01/13/2000 - 08/31/2001 FY00: \$50,000 Total: \$50,000  
Prin. Invest.: D S TAN  
Tech. Officer: GRC/G L STEFKO  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 157 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5510**  
DEVELOPMENT OF AN UNSTRUCTURED MESH CODE FOR FLOWS ABOUT  
COMPLETE VEHICLES  
08/27/1998 - 09/30/2000 FY00: \$24,486 Total: \$78,829  
Prin. Invest.: J PERAIRE  
Tech. Officer: DFRG/K GUPTA  
CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 2165 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5511**  
ACCURATE, SIMULTANEOUS GAMMA RAY BURST POSITION DETERMINA-  
TION USING THE BURST AND TRANSIENT...  
12/31/1992 - 12/31/1998 FY00: -\$45 Total: \$121,955  
Prin. Invest.: G R RICKER  
Tech. Officer: GSFC/J P NORRIS, GSFC/N WHITE  
CASE Category: 11 - ASTRONOMY

**NAG 5 2734 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5512**  
X-RAY BURST SPECTROSCOPY  
09/21/1994 - 03/31/1999 FY00: -\$7 Total: \$84,993  
Prin. Invest.: W LEWIS  
Tech. Officer: GSFC/N WHITE  
CASE Category: 11 - ASTRONOMY

**NAG 5 3109 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5513**  
ALL - SKY STUDIES OF ACCRETION - POWERED PULSARS  
10/26/1995 - 06/30/1999 FY00: -\$3,706 Total: \$149,473  
Prin. Invest.: H BRADT, D CHAKRABARTY  
Tech. Officer: GSFC/J NORRIS, GSFC/N GEHRELS  
CASE Category: 11 - ASTRONOMY

**NAG 5 3281 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5514**  
TIMING AND SPECTRAL STUDY OF LMC X-4  
07/01/1996 - 09/30/1999 FY00: -\$36 Total: \$17,764  
Prin. Invest.: G CLARK  
Tech. Officer: GSFC/J SWANK  
CASE Category: 11 - ASTRONOMY

**NAG 5 3314 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5515**  
A SEARCH FOR MICROSECOND VARIABILITY FROM BRIGHT GALACTIC  
X-RAY SOURCES  
08/07/1996 - 02/14/1999 FY00: -\$74 Total: \$6,775  
Prin. Invest.: E MORGAN  
Tech. Officer: GSFC/J SWANK  
CASE Category: 11 - ASTRONOMY

**NAG 5 3550 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5516**  
ASSESSMENT OF GEOPHYSICAL SIGNALS IN GLOBAL GEODETIC DATA  
12/14/1996 - 11/30/2000 FY00: \$0 Total: \$399,480  
Prin. Invest.: T A HERRING  
Tech. Officer: GSFC/P TAYLOR  
CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3555 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5517**  
A SEARCH FOR HOT GAS IN MERGING CLUSTERS  
01/22/1997 - 09/30/1999 FY00: -\$45 Total: \$9,955  
Prin. Invest.: D DAVIS  
Tech. Officer: GSFC/N WHITE  
CASE Category: 11 - ASTRONOMY

**NAG 5 3558 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5518**  
ACCRETING BLACK HOLES - AN ALL OUT EFFORT  
12/14/1996 - 12/14/2000 FY00: \$50,000 Total: \$130,003  
Prin. Invest.: W H LEWIN  
Tech. Officer: GSFC/D K WEST  
CASE Category: 11 - ASTRONOMY

<b>NAG 5 3597 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5519</b> A SEARCH FOR EGRET/RADIO PULSARS IN THE ETA CARINA REGION 01/22/1997 - 09/30/1999 FY00: -\$39 Total: \$16,497 <i>Prin. Invest.:</i> V KASPI <i>Tech. Officer:</i> GSFC/J P NORRIS <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 3977 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5527</b> COLLISION PROCESSES INVOLVING ATMOSPHERIC FREE RAD INFRARED ABSORBERS 02/26/1997 - 10/31/2000 FY00: \$74,605 Total: \$287,633 <i>Prin. Invest.:</i> P STEINFELD <i>Tech. Officer:</i> GSFC/P L DECOLA <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 3726 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5520</b> AMAZON DEFORESTATION & REGIONAL CLIMAT3E 02/12/1997 - 12/31/2000 FY00: \$0 Total: \$317,531 <i>Prin. Invest.:</i> R L BRAS <i>Tech. Officer:</i> GSFC/R KAKAR <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4047 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5528</b> INVESTIGATION OF VENUS SURFACE PROPERTIES 03/10/1997 - 12/31/2000 FY00: \$0 Total: \$165,000 <i>Prin. Invest.:</i> D G FORD <i>Tech. Officer:</i> GSFC/J G GRANT <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE
<b>NAG 5 3727 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5521</b> DEVELOPMENT OF OLIGONUCLEOTIDE PROBES TO STUDY THE PROCHLO-ROCOCCUS STRAINS WITH DIFFERING PHOTOSYNTH 02/20/1997 - 02/14/2001 FY00: \$2,512 Total: \$164,761 <i>Prin. Invest.:</i> S W CHISHOLM <i>Tech. Officer:</i> GSFC/J A YODER <i>CASE Category:</i> 33 - OCEANOGRAPHY	<b>NAG 5 4057 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5529</b> THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING C 03/19/1997 - 03/14/2000 FY00: \$13,072 Total: \$109,660 <i>Prin. Invest.:</i> S A RAPPAPORT <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 3915 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5522</b> SOLAR SYSTEM DYNAMICS 02/21/1997 - 09/30/2000 FY00: \$114,000 Total: \$493,900 <i>Prin. Invest.:</i> J WISDOM <i>Tech. Officer:</i> GSFC/P G ROGERS <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE	<b>NAG 5 4114 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5530</b> LONG-TERM MONITORING OF PERSISTENT ACCRETION-POWER 04/17/1997 - 04/14/2000 FY00: -\$8,897 Total: \$16,151 <i>Prin. Invest.:</i> D CHAKRAGARTY <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 3939 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5523</b> SMALL MAIN-BELT SPECTROSCOPIC SURVEY 02/12/1997 - 12/31/2000 FY00: \$150,720 Total: \$570,720 <i>Prin. Invest.:</i> D P BINZEL <i>Tech. Officer:</i> GSFC/J BERGSTRALH <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 4115 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5531</b> RXTE SEARCH FOR THE CENTRIFUGAL BARRIER IN TRANSIE 04/17/1997 - 04/14/2000 FY00: -\$1 Total: \$25,841 <i>Prin. Invest.:</i> S RAPPAPORT <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 3940 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5524</b> STELLAR OCCULTATION STUDIES OF PLUTO, TRITON 02/12/1997 - 11/30/2000 FY00: \$122,432 Total: \$494,752 <i>Prin. Invest.:</i> D L ELLIOT <i>Tech. Officer:</i> GSFC/J BERGSTRALH <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 4400 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5532</b> X-RAY, OPTICAL REVERBERATION STUDY OF NEARBY BROAD 04/16/1997 - 04/14/1999 FY00: -\$45 Total: \$10,061 <i>Prin. Invest.:</i> R A REMILARD <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 3947 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5525</b> FLOW TUBE STUDIES OF GAS PHASE CHEMICAL PROCESSES IMPOR-TANCE 02/21/1997 - 12/31/1999 FY00: \$0 Total: \$599,878 <i>Prin. Invest.:</i> M J MOLINA, NONE <i>Tech. Officer:</i> GSFC/M J KURYLO <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4434 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5533</b> RESEARCH PARTICIPATION IN THE MARS ORBITING LASER 04/28/1997 - 12/31/2000 FY00: \$79,980 Total: \$334,891 <i>Prin. Invest.:</i> G H PETTENGILL <i>Tech. Officer:</i> GSFC/D E SMITH <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 5 3974 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5526</b> ADVANCED GLOBAL ATMOSPHERIC GASES EXPERIMENT (AGAG) 02/26/1997 - 01/31/2001 FY00: \$538,606 Total: \$1,883,193 <i>Prin. Invest.:</i> R G PRINN <i>Tech. Officer:</i> GSFC/M J KURYLO <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4485 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5534</b> TIMING AND SPECTRAL STUDY OF 4U 1538-52 05/08/1997 - 04/30/2000 FY00: \$0 Total: \$20,130 <i>Prin. Invest.:</i> G CLARK <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY
	<b>NAG 5 4486 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5535</b> LUMINOSITY DEPENDENCE OF THE X-RAY SPECTRA AND VAR SOURCES 05/08/1997 - 04/30/2000 FY00: \$0 Total: \$16,000 <i>Prin. Invest.:</i> W LEWIN <i>Tech. Officer:</i> GSFC/J SWANK <i>CASE Category:</i> 11 - ASTRONOMY

<b>NAG 5 4555 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5536</b> PLANETARY TECTONICS AND VOLCANISM 06/23/1997 - 03/31/2001 FY00: \$87,400 Total: \$597,783 Prin. Invest.: D R ZUBER Tech. Officer: GSFC/H BRINTON CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 5 4880 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5545</b> THE FACTORS CONTROLLING POLEWARD HEAT TRANSPORT IN 07/15/1997 - 04/30/2001 FY00: \$38,000 Total: \$178,640 Prin. Invest.: P H STONE Tech. Officer: GSFC/A HOU CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 4733 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5537</b> FAST TIMING AND SPECTROSCOPY OF Z SOURCES 06/04/1997 - 06/30/2000 FY00: \$0 Total: \$30,000 Prin. Invest.: W LEWIN Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY	<b>NAG 5 4959 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5546</b> ASCA STUDIES OF THE NEAREST REGION OF STAR FORMATION 06/27/1997 - 06/30/1999 FY00: -\$34 Total: \$20,066 Prin. Invest.: J KASTNER Tech. Officer: GSFC/N WHITE CASE Category: 11 - ASTRONOMY
<b>NAG 5 4768 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5538</b> PHASE EQUILIBRIUM INVESTIGATIONS OF PLANETARY MATERIALS 06/09/1997 - 06/30/2001 FY00: \$0 Total: \$180,000 Prin. Invest.: P L GROVE Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY	<b>NAG 5 4989 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5547</b> CENTER FOR QUANTITATIVE CARDIOVASCULAR PHYSIOLOGY, ANALYSIS 06/27/1997 - 11/30/2000 FY00: \$200,000 Total: \$575,000 Prin. Invest.: R COHEN Tech. Officer: GSFC/V SCHNEIDER CASE Category: 59 - LIFE SCIENCE, OTHER
<b>NAG 5 4778 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5539</b> RAINFALL-LIGHTNING RELATIONSHIPS ON A GLOBAL BASIS 06/18/1997 - 11/30/2000 FY00: \$48,172 Total: \$406,916 Prin. Invest.: E R WILLIAMS Tech. Officer: GSFC/R W LAWRENCE CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 5105 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5548</b> A THREE-YEAR PROGRAM OF MICRO AND NANO SYSTEM TECHNOLOGY DEVELOPMENT FOR X-RAY ASTRONOMY 01/17/1997 - 01/31/2001 FY00: \$0 Total: \$915,000 Prin. Invest.: C R CANIZARES Tech. Officer: GSFC/B FLOWERS CASE Category: 13 - PHYSICS
<b>NAG 5 4805 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5540</b> ORBITAL-PHASE-RESOLVED STUDY OF OAO 1657-415 IN SP 08/01/1997 - 07/31/2000 FY00: \$0 Total: \$16,173 Prin. Invest.: D CHAKRABARTY Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY	<b>NAG 5 5271 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5549</b> FIRST YEAR OF TWO YEAR EFFORT FIRST YEAR OF TWO YEAR EFFORT - A PROGRAM OF 04/17/2000 - 04/16/2002 FY00: \$355,000 Total: \$355,000 Prin. Invest.: M SCHATTEBURG Tech. Officer: GSFC/J C BRINTON CASE Category: 13 - PHYSICS
<b>NAG 5 4806 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5541</b> MARS OBSERVER LASER ALTIMETER 08/01/1997 - 07/31/2001 FY00: \$134,409 Total: \$860,232 Prin. Invest.: M ZUBER Tech. Officer: GSFC/D SMITH CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER	<b>NAG 5 6062 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5550</b> RECENT AND ACTIVE EVOLUTION OF THE EASTERN TIBETAN PLATEAU STUDY 07/28/1997 - 07/14/2001 FY00: \$31,000 Total: \$151,577 Prin. Invest.: B C FIELD Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 4807 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5542</b> GPS MEASUREMENTS OF LOCALIZED INTRA-CONTINENTAL DEFORMATION 08/01/1997 - 07/31/2000 FY00: \$46,000 Total: \$194,000 Prin. Invest.: P MOLNAR Tech. Officer: GSFC/H FREY CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 5 6063 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5551</b> VERTICAL ACCURACY IMPROVEMENT FOR VLBI AND GPS 08/01/1997 - 01/14/2001 FY00: \$56,000 Total: \$272,990 Prin. Invest.: A E NIELL Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 4870 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5543</b> X-RAY, OPTICAL REVERBERATION STUDY OF 3C120 06/26/1997 - 06/30/1999 FY00: \$0 Total: \$13,483 Prin. Invest.: R A REMILLARD Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY	<b>NAG 5 6129 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5552</b> MODELING THE EXTENDED NEUTRAL ATMOSPHERE AND PLASMA SHEATH 08/04/1997 - 07/14/2000 FY00: \$44,730 Total: \$181,000 Prin. Invest.: D RICHARDSON Tech. Officer: GSFC/J BERGSTRAHL CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 4879 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5544</b> XTE OBSERVATIONS OF PSR1259-63 NEAR APASTRON 07/15/1997 - 07/14/2000 FY00: \$0 Total: \$3,000 Prin. Invest.: V KASPI Tech. Officer: GSFC/J SWANK CASE Category: 11 - ASTRONOMY	

<p><b>NAG 5 6145 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5553</b>  CRUSTAL DEFORMATION AND EARTHQUAKE HAZARDS IN THE REGION  08/21/1997 - 08/31/2000 FY00: \$75,000 Total: \$350,000  Prin. Invest.: R E REILINGER  Tech. Officer: GSFC/H V FREY  CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p><b>NAG 5 6523 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5561</b>  STUDIES OF TECHNIQUES FOR THE DETECTION OF PLANETS OF OTHER  SOLAR SYSTEMS  12/16/1997 - 06/30/2000 FY00: \$0 Total: \$45,000  Prin. Invest.: B BURKE  Tech. Officer: GSFC/J BERGSTRAHL  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 6224 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5554</b>  ESTIMATION OF THE CIRCULATION OF THE PACIFIC OCEAN ALTIMETRIC  DATA WITH A GENERAL CIRCULATION MODEL  08/21/1997 - 08/31/1999 FY00: \$0 Total: \$201,400  Prin. Invest.: P WUNSCH  Tech. Officer: GSFC/E LINDSTROM  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 6592 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5562</b>  ON THE SPACE-TIME ORGANIZATION OF SOIL MOISTURE FIELDS:  DYNAMICS AND INTERACTION WITH THE ATMOSP  11/07/1997 - 08/31/1999 FY00: \$0 Total: \$45,000  Prin. Invest.: D ENTEKHABI  Tech. Officer: GSFC/M WEI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 6304 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5555</b>  GLOBAL SCALE CIRCULATION PROCESSES  10/10/1997 - 04/30/2000 FY00: \$0 Total: \$204,000  Prin. Invest.: D S LINDZEN  Tech. Officer: GSFC/K H BERGMAN  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 5 6710 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5563</b>  PHYSICAL MECHANISMS CONTROLLING UPPER TROPOSPHERIC WATER  VAPOR AS REVEALED BY MLS DATA FROM U  12/17/1997 - 11/30/2000 FY00: \$84,000 Total: \$278,000  Prin. Invest.: D NEWELL, NONE  Tech. Officer: GSFC/A DOUGLASS  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 5 6333 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5556</b>  MONITORING THE BLACK HOLE CANDIDATE GRS1915+105  10/02/1997 - 09/30/1999 FY00: -\$26 Total: \$16,291  Prin. Invest.: E MORGAN  Tech. Officer: GSFC/J SWANK  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 6722 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5564</b>  EARLY PRECAMBRIAN CARBONATE AND EVAPORITE SEDIMENT S:  CONSTRAINTS ON ENVIRONMENTAL AND BIOLOGICAL  12/16/1997 - 09/30/2000 FY00: \$0 Total: \$233,666  Prin. Invest.: J GROTZINGER  Tech. Officer: GSFC/M MEYER  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 6352 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5557</b>  SURFACE DEFORMATION AND GRAVITY CHANGES FROM SURFACE LOADS  09/26/1997 - 01/14/2001 FY00: \$70,000 Total: \$300,000  Prin. Invest.: B HAGER  Tech. Officer: GSFC/E J LINDSTROM  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7012 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5565</b>  JETS IN AGN: NUMERICAL SIMULATIONS IN RELATIVISTIC MHD - ATP  02/19/1998 - 02/28/2001 FY00: \$61,230 Total: \$182,915  Prin. Invest.: M H VAN PUTTEN  Tech. Officer: GSFC/D K WEST  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 6394 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5558</b>  MUTUAL INTERACTION OF SOIL MOISTURE AND CLIMATE DYNAMICS  10/17/1997 - 09/30/1999 FY00: -\$260 Total: \$99,740  Prin. Invest.: D ENTEKHABI, NONE  Tech. Officer: GSFC/M WEI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7162 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5566</b>  ESTIMATING THE OCEAN FLOW FIELD FROM COMBINED SEA SURFACE  TEMPERATURE AND SEA SURFACE HEIGHT DATA  04/17/1998 - 02/28/2000 FY00: -\$48 Total: \$272,972  Prin. Invest.: D STAMMER  Tech. Officer: GSFC/E LINDSTROM  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 6441 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5559</b>  EXTENSIONS AND TESTING OF LAND SURFACE HYDROLOGIC PARAMETER-  IZATIONS IN THE GISS GCM  11/13/1997 - 09/30/1999 FY00: \$0 Total: \$114,137  Prin. Invest.: D ENTEKHABI  Tech. Officer: GSFC/D WICKLAND  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7194 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5567</b>  ATLANTIC OCEAN PROCESSES FROM SUBPOLAR REGIONS TO THE  SOUTHERN SUBTROPICAL GYRE: MODEL/DATA COMPAR  03/26/1998 - 12/31/2000 FY00: \$181,000 Total: \$453,680  Prin. Invest.: P RIZZOLI  Tech. Officer: GSFC/E LINDSTROM  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 6473 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5560</b>  SHOCK EVOLUTION IN THE OUTER HELIOSPHERE  11/13/1997 - 10/31/2000 FY00: \$50,304 Total: \$148,958  Prin. Invest.: K PAULARENA  Tech. Officer: GSFC/J LING  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7204 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5568</b>  PARTICIPATION IN THE GISS EOS PROPOSAL  03/25/1998 - 07/14/2000 FY00: \$0 Total: \$100,000  Prin. Invest.: P H STONE  Tech. Officer: GSFC/D RIND  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>

**NAG 5 7242 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5589**  
 XTE PROPOSAL - CHARACTERIZING THE LOW STATE OF GRS 1737-31, A  
 NEWBLACK HOLE CANDIDATE  
 04/15/1998 - 04/14/2000 FY00: \$0 Total: \$5,050  
*Prin. Invest.:* W CUI  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7279 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5570**  
 XTE PROPOSAL - DOES PRECESSION OF THE ACCRETION DISK OF SMC  
 X-1 CAUSE A VARIATION IN THE PULSE PERIOD  
 04/15/1998 - 04/14/2001 FY00: \$0 Total: \$10,125  
*Prin. Invest.:* G W CLARK  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7281 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5571**  
 XTE PROPOSAL - A COORDINATED RXTE/ASCA STUDY OF AB SORPTION  
 DIPS IN CIRCIUS X-1 AT PHASE ZERO  
 04/15/1998 - 04/14/2000 FY00: -\$46 Total: \$5,952  
*Prin. Invest.:* H V BRADT  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7328 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5572**  
 XTE PROPOSAL - SIMULTANEOUS X-RAY/ULTRAVIOLET TIMING OF 4U  
 1626-67  
 04/24/1998 - 04/30/2000 FY00: -\$30 Total: \$8,703  
*Prin. Invest.:* D CHAKRABARTY  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7336 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5573**  
 XTE PROPOSAL - STUDY OF KHZ QPO IN Z SOURCES  
 04/24/1998 - 04/30/2000 FY00: -\$15 Total: \$4,861  
*Prin. Invest.:* W LEWIN  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7337 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5574**  
 XTE PROPOSAL - MONITORING OBSERVATIONS OF GRO J1744-28  
 04/24/1998 - 04/30/2000 FY00: -\$8 Total: \$4,367  
*Prin. Invest.:* W LEWIN  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7344 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5575**  
 XTE PROPOSAL (30165) - THE DIFFERENT STATES OF GX 339-4  
 06/01/1998 - 05/31/2000 FY00: \$0 Total: \$5,500  
*Prin. Invest.:* W LEWIN  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7359 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5576**  
 MO & DA ON THE SWIE INSTRUMENT ON THE WIND SPACECRAFT  
 05/05/1998 - 05/14/2001 FY00: \$120,000 Total: \$502,000  
*Prin. Invest.:* A LARARUS  
*Tech. Officer:* GSFC/K OGILVIE  
*CASE Category:* 99 - MULTI INTERDISCIPLINARY

**NAG 5 7374 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5577**  
 XTE PROPOSAL - TEMPORAL AND SPECTRAL PROPERTIES OF KS  
 1731-260  
 05/12/1998 - 05/31/2000 FY00: -\$7 Total: \$7,120  
*Prin. Invest.:* E H MORGAN  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7375 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5578**  
 XTE PROPOSAL - SPECTRAL AND TIMING INVESTIGATIONS OF DWARF  
 NOVAE SELECTED IN HARD X-RAYS  
 05/12/1998 - 05/31/2000 FY00: \$0 Total: \$6,746  
*Prin. Invest.:* R A REMILLARD  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7408 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5579**  
 XTE PROPOSAL (30071) - OBSERVATIONS OF BLACK-HOLE X-RAY BINA-  
 RIES IN OUTBURST  
 05/28/1998 - 05/31/2000 FY00: -\$33 Total: \$6,972  
*Prin. Invest.:* W LEWIN  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7424 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5580**  
 XTE PROPOSAL (30705) - SNAPSHOTS OF NEW ASM/BATSE TRANSIENT  
 SOURCES WITH RXTE  
 05/27/1998 - 05/31/2000 FY00: -\$1 Total: \$5,958  
*Prin. Invest.:* W CUI  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7475 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5581**  
 THE VALUE OF DISTRIBUTED MODELING TO FLOOD FORECASTING  
 06/18/1998 - 08/31/2001 FY00: \$0 Total: \$382,143  
*Prin. Invest.:* R BRASS  
*Tech. Officer:* GSFC/E ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7476 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5582**  
 XTE PROPOSAL (30078) - RXTE OBSERVATIONS OF THE RAPID BURSTER  
 IN OUTBURST  
 06/01/1998 - 05/31/2000 FY00: -\$10 Total: \$8,741  
*Prin. Invest.:* W LEWIN  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7480 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5583**  
 XTE PROPOSAL (30269) - BL LACS IN X-RAY OUTBURST  
 06/01/1998 - 05/31/2000 FY00: \$0 Total: \$6,012  
*Prin. Invest.:* R A REMILLARD  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7481 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5584**  
 XTE PROPOSAL (30079) - SIMULTANEOUS RXTE AND RADIO OBSERVA-  
 TIONS OF THE RAPID BURSTER IN OUTBURST  
 06/01/1998 - 05/31/2000 FY00: \$0 Total: \$5,000  
*Prin. Invest.:* W LEWIN  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7484 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5585**  
 XTE PROPOSAL (30188) - MAPPING THE RISING PHASE OF X-RAY  
 OUTBURSTS IN SOFT X-RAY TRANSIENTS  
 06/01/1998 - 05/31/2000 FY00: \$0 Total: \$6,467  
 Prin. Invest.: W CUI  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7487 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5586**  
 THIS PR PROVIDES FUNDING TO A MIT GRANT ON "PASSIVE MICROWAVE  
 STUDIES OF ATMOSPHERIC PRECIPITATION A  
 06/05/1998 - 06/14/2001 FY00: \$115,000 Total: \$355,000  
 Prin. Invest.: D STAELIN  
 Tech. Officer: GSFC/J C SHIUE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7517 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5587**  
 XTE PROPOSAL (30137) TARGET OF OPPORTUNITY POSITIONING OF  
 TRANSIENT X-RAY PULSARS  
 06/04/1998 - 06/14/2000 FY00: \$0 Total: \$6,815  
 Prin. Invest.: D CHAKRABARTY  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7525 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5588**  
 USE OF SATELLITE REMOTE SENSING TO STUDY THE ROLE OF RAINFO-  
 RESTS IN TROPICAL CLIMATE  
 06/08/1998 - 12/31/2001 FY00: \$100,000 Total: \$212,000  
 Prin. Invest.: E ELTAHIR  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7794 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5589**  
 INTERCALIBRATION AND CROSS-CORRELATION OF ACE AND WIND SOLAR  
 WIND DATA  
 12/10/1998 - 09/30/2000 FY00: \$68,294 Total: \$133,962  
 Prin. Invest.: D J LAZARUS  
 Tech. Officer: GSFC/D C LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7806 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5590**  
 STUDY OF TEMPORAL AND SPECTRAL VARIABILITY OF BLACK-HOLE  
 CANDIDATES WITH BATSE  
 11/10/1998 - 12/14/1999 FY00: \$0 Total: \$5,002  
 Prin. Invest.: W LEWIN  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7807 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5591**  
 SEARCH FOR UNTRIGGERED EVENTS IN THE BATSE DATA BASE  
 11/10/1998 - 12/14/1999 FY00: -\$56 Total: \$4,942  
 Prin. Invest.: W LEWIN  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7839 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5592**  
 STRUCTURAL DYNAMICS & CONTROLS ANALYSES, SIMULATIONS, AND  
 TESTBEDS FOR THE NEXT GENERATION SPACE T  
 12/16/1998 - 12/14/2000 FY00: \$150,000 Total: \$300,928  
 Prin. Invest.: D W MILLER  
 Tech. Officer: GSFC/G MOSIER  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 5 7857 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5593**  
 A SYNTHESIS OF THE GLOBAL WOE OBSERVATIONS OF THE OCEANIC  
 CIRCULATION  
 12/10/1998 - 11/30/2000 FY00: \$262,240 Total: \$512,240  
 Prin. Invest.: C WUNSCH  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7967 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5594**  
 A SEARCH FOR THE SOLAR SOURCES OF HIGH-SPEED SOLAR WIND  
 STREAMS  
 01/15/1999 - 12/14/2000 FY00: \$96,342 Total: \$189,845  
 Prin. Invest.: D J LAZARUS  
 Tech. Officer: GSFC/D C LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7990 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5595**  
 RELATIVISTIC ASTROPHYSICS IN BLACK HOLE AND LOW-MASS NEUTRON  
 STAR X-RAY BINARIES - LTSA98  
 01/22/1999 - 08/14/2000 FY00: \$19,836 Total: \$33,532  
 Prin. Invest.: W CUI  
 Tech. Officer: GSFC/R K OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8031 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5596**  
 REDUCTION AND SCIENTIFIC ANALYSIS OF DATA FROM IMP-8  
 01/19/1999 - 12/31/2000 FY00: \$100,000 Total: \$190,188  
 Prin. Invest.: A J LAZARUS, NONE  
 Tech. Officer: GSFC/J KING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8045 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5597**  
 SCIENTIFIC ANALYSIS OF DATA FOR THE ISTP/SOLARMAX PROGRAM  
 01/11/1999 - 01/14/2001 FY00: \$40,000 Total: \$99,954  
 Prin. Invest.: A J LAZARUS  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 8063 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5598**  
 PULSAR WIND NEBULAE, SPACE VELOCITIES, & SUPERNOVA REMNANT  
 ASSOCIATIONS LTSA 98  
 01/13/1999 - 01/14/2001 FY00: \$48,000 Total: \$96,000  
 Prin. Invest.: V M KASPI  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8224 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5599**  
 "THEORY AND MODELING OF STRATOSPHERIC AGE DISTRIBUTIONS"  
 02/10/1999 - 08/14/2000 FY00: \$0 Total: \$73,316  
 Prin. Invest.: R PLUMB  
 Tech. Officer: GSFC/R W STEWART  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8243 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5600**  
 XTE PROPOSAL - QPO AND SPECTRAL STUDIES OF "NEW" S TATES OF  
 CIRCINUSX-1  
 02/10/1999 - 02/14/2000 FY00: -\$9 Total: \$8,537  
 Prin. Invest.: H V BRADT  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8244 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5601**  
 SEARCH FOR ORBITAL DECAY IN LMC X-4  
 02/10/1999 - 02/14/2000 FY00: \$0 Total: \$10,642  
 Prin. Invest.: S A RAPPAPORT  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8368 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5602**  
 FORMATION AND EVOLUTION OF BINARY SYSTEMS CONTAINING  
 COLLAPSED STARS(ATP 98)  
 03/01/1999 - 04/30/2001 FY00: \$51,810 Total: \$106,810  
 Prin. Invest.: S A RAPPAPORT  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8460 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5603**  
 THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING COLLAPSED  
 STARS  
 04/16/1999 - 04/14/2001 FY00: \$74,856 Total: \$155,061  
 Prin. Invest.: F A RASIO  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8617 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5604**  
 TWO-WAY BIOSPHERE-ATMOSPHERE INTERACTIONS: THEIR IMPLICA-  
 TIONS FOR SATELLITE OBSERVATIONS OF REGIONAL  
 06/14/1999 - 06/30/2001 FY00: \$73,814 Total: \$124,064  
 Prin. Invest.: E B ELTAHIR  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8668 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5605**  
 DIRECT DEPOSITION OF OPTICAL BLOCKING FILTERS ON CCD X-RAY  
 DETECTORS  
 07/07/1999 - 09/30/2001 FY00: \$0 Total: \$172,793  
 Prin. Invest.: M W BAUTZ  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8707 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5606**  
 IMPLICATIONS OF LUNAR PROSPECTOR DATA FOR LUNAR GEOPHYSICS  
 07/20/1999 - 07/31/2001 FY00: \$82,347 Total: \$127,347  
 Prin. Invest.: M T ZUBER  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8720 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5607**  
 INVESTIGATION OF SOLAR WIND CORRELATIONS & MODIFI- CATIONS  
 NEAR EARTH USING MULTI-SPACECRAFT OBSERVA  
 08/03/1999 - 07/31/2001 FY00: \$22,500 Total: \$46,500  
 Prin. Invest.: K I PAULARENA  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8776 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5608**  
 RESIN-SPINNING OF SYNTHETIC POLYMER FIBERS WITH SILK-LIKE PROP-  
 erties  
 08/31/1999 - 08/31/2001 FY00: \$175,000 Total: \$218,750  
 Prin. Invest.: G MCKINLEY  
 Tech. Officer: GSFC/R CROUCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8814 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5609**  
 TEMPO OF THE PERMIAN MASS EXTINCTIONS & RECOVERIES  
 09/29/1999 - 09/30/2000 FY00: \$0 Total: \$114,000  
 Prin. Invest.: S A BOWRING  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8887 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5610**  
 LABORATORY STUDIES OF HOMOGENEOUS & HETEROGENEOUS CHEM-  
 ICAL PROCESSES OF IMPORTANCE IN THE UPPER ATMOSPHERE  
 12/02/1999 - 12/31/2000 FY00: \$199,615 Total: \$199,615  
 Prin. Invest.: M MOLINA  
 Tech. Officer: GSFC/P DECOLA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8947 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5611**  
 MODELING THE EXTENDED NEUTRAL ATMOSPHERE & PLASMA ENVIRON-  
 MENT NEAR SATURN/FOLLOW-ON TO NAG5-6129  
 01/18/2000 - 07/14/2001 FY00: \$59,534 Total: \$59,534  
 Prin. Invest.: J D RICHARDSON  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9057 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5612**  
 NEW GPS SITES ON THE ARABIAN PLATE TO EXPAND THE IGS NETWORK &  
 TO SUPPORT MEASUREMENTS OF THE RED  
 02/15/2000 - 02/28/2001 FY00: \$13,500 Total: \$13,500  
 Prin. Invest.: R E REILINGER  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9080 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5613**  
 DEVELOPMENT OF SOLID-STATE LOCAL-OSCILLATOR SOURCE FOR  
 TERAHERTZ FREQUENCIES  
 02/17/2000 - 02/28/2003 FY00: \$138,000 Total: \$138,000  
 Prin. Invest.: Q HU  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9117 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5614**  
 SELF-ORGANIZED CRITICALITY, MULTIFRACTALS, & INTERMITTENT  
 TURBULENCE IN EARTH'S MAGNETOSPHERE  
 02/24/2000 - 02/28/2001 FY00: \$42,000 Total: \$42,000  
 Prin. Invest.: T CHANG  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9120 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5615**  
 NEW ENERGETIC RADIO PULSARS: AN ARCHIVAL X-RAY SURVEY - ADP 99  
 02/29/2000 - 02/28/2001 FY00: \$29,166 Total: \$29,166  
 Prin. Invest.: V M KASPI  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9135 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5616**  
 RXTE OBSERVATIONS OF BLACK HOLE CANDIDATES ADP99  
 02/28/2000 - 02/28/2001 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: W H LEWIN  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9143 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5617**  
 APPLICATIONS OF AIRBORNE & ORBITAL LASER ALTIMETRY FOR COASTAL  
 PROCESSES & MARINE STATIC GRAVITY  
 02/29/2000 - 02/28/2001 FY00: \$46,500 Total: \$46,500  
 Prin. Invest.: M T ZURBER  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICALSCIENCE

**NAG 5 9164 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5618**  
 LONG-TERM MONITORING OF ANOMALOUS X-RAY PULSARS WITH RXTE -  
 ADP 99  
 03/08/2000 - 03/14/2001 FY00: \$58,265 Total: \$58,265  
 Prin. Invest.: D CHAKRABARTY  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9184 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5619**  
 ACCRETING NEUTRON STARS AS ASTROPHYSICAL LABORATORIES  
 LTSA-99  
 03/07/2000 - 03/14/2001 FY00: \$118,014 Total: \$118,014  
 Prin. Invest.: D CHAKRABARTY  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9185 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5620**  
 TIMING THE MILLISECOND X-RAY PULSAR WITH RXTE - ADP - 99  
 03/07/2000 - 03/14/2001 FY00: \$58,866 Total: \$58,866  
 Prin. Invest.: D CHAKRABARTY  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9189 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5621**  
 X-RAY PULSAR STUDIES WITH RXTE - ADP 99  
 03/08/2000 - 03/14/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: S RAPPAPORT  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9211 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5622**  
 A SEARCH FOR EVIDENCE OF NON-THERMAL EMISSION FROM THE  
 SUPERNOVA REMNANTS 37A/B (ADP 99)  
 03/09/2000 - 03/14/2001 FY00: \$7,709 Total: \$7,709  
 Prin. Invest.: G ALLEN  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9235 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5623**  
 A MEASUREMENT OF THE NON-THERMAL X-RAY EMISSION OF THE  
 SUPERNOVA REMNANT J1713.7-3946 - ADP 99  
 03/09/2000 - 03/14/2001 FY00: \$8,769 Total: \$8,769  
 Prin. Invest.: G ALLEN  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9237 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5624**  
 A STUDY OF THE NON-THERMAL X-RAY EMISSION OF SHELL -TYPE  
 SUPERNOVA REMNANTS - LTSA99  
 03/09/2000 - 03/14/2001 FY00: \$100,100 Total: \$100,100  
 Prin. Invest.: G ALLEN  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9445 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5625**  
 CARBONATE PLATFORM DEVELOPMENT & STROMATOLITE MORPHOGENESIS:  
 CONSTRAINTS ON ENVIRONMENTAL & BIOLOGIC  
 05/01/2000 - 04/30/2001 FY00: \$117,750 Total: \$117,750  
 Prin. Invest.: J GROTZINGER  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NAG 5 9525 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5626**  
 PHASE EQUILIBRIUM INVESTIGATIONS OF PLANETARY MATERIALS  
 04/28/2000 - 06/30/2001 FY00: \$61,000 Total: \$61,000  
 Prin. Invest.: T L GROVE  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9616 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5627**  
 SOLAR WIND ACCELERATION, HEATING, & EVOLUTION WITH WAVE-PAR-  
 TICLE  
 05/23/2000 - 04/30/2001 FY00: \$38,297 Total: \$38,297  
 Prin. Invest.: T CHANG  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9622 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5628**  
 DEVELOPMENT OF 25-YEAR IMP 8 BOW SHOCK CROSSING LIST, INGES-  
 TION OF THIS LIST TO CDAWEB, & ENHANCEMENT  
 05/19/2000 - 05/31/2001 FY00: \$20,915 Total: \$20,915  
 Prin. Invest.: K PAULARENA  
 Tech. Officer: GSFC/J KING  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9637 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5629**  
 THE USE OF TRMM LIS & GEOSTATIONARY IR DATA TO STUDY LAND-  
 OCEAN DIFFERENCES IN CONVECTION & THEIR RE  
 07/07/2000 - 11/30/2000 FY00: \$50,890 Total: \$50,890  
 Prin. Invest.: E R WILLIAMS  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9640 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5630**  
 APPLICATIONS OF TRMM PRODUCTS IN HYDROLOGIC STUDIES OVER THE  
 AMAZON REGION  
 07/07/2000 - 11/30/2000 FY00: \$139,131 Total: \$139,131  
 Prin. Invest.: R L BRAS  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9763 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5631**  
 OPTICAL INTERFEROMETER STUDIES OF OTHER PLANETARY SYSTEMS  
 06/27/2000 - 06/30/2001 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: B F BURKE, NONE  
 Tech. Officer: GSFC/P CRANE  
 CASE Category: 11 - ASTRONOMY



**NAG 5 9962 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5632**  
 DISENTANGLING X-RAY EMISSION PROCESSES IN VELA- LIKE PULSARS  
 09/22/2000 - 09/30/2001 FY00: \$20,625 Total: \$20,625  
 Prin. Invest.: B M GAENSLER  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10006 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5633**  
 STUDYING THE INTERGALACTIC MEDIUM THROUGH X-RAY ABSORPTION LINES  
 09/25/2000 - 09/30/2001 FY00: \$28,000 Total: \$28,000  
 Prin. Invest.: C R CANIZARES  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1253 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5634**  
 RESEARCH APPLICATION OF PARALLEL COMPUTING FOR TWO AND THREE D MODELING OF BULK CRYSTAL GROWTH  
 06/24/1996 - 06/30/2001 FY00: \$84,220 Total: \$584,927  
 Prin. Invest.: R A BROWN  
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1435 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5635**  
 TOWARDS PRECISION EXPERIMENTS WITH BOSE-EINSTEIN CONDENSATES  
 02/03/1998 - 01/31/2003 FY00: \$165,000 Total: \$276,000  
 Prin. Invest.: W KETTERLE  
 Tech. Officer: MSFC/D HUBBARD  
 CASE Category: 13 - PHYSICS

**NAG 8 1487 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5636**  
 IDENTIFICATION AND CONTROL OF GRAVITY RELATED DEFECT FORMATION DURING MELT GROWTH OF ELECTROOPTIC  
 02/13/1998 - 01/31/2002 FY00: \$189,000 Total: \$436,745  
 Prin. Invest.: A WITT  
 Tech. Officer: MSFC/M PURVEY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 8 1524 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5637**  
 DIRECT USE OF SATELLITE REMOTE SENSING IN THE ESTIMATION OF HYDROLOGIC TRANSPORTS  
 05/22/1998 - 08/31/2001 FY00: \$294,701 Total: \$434,701  
 Prin. Invest.: D ENTEKHABI  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1659 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5638**  
 KINETIC EVOLUTION OF STABLE AND METASTABLE STATES IN PROTEIN SOLUTIONS  
 05/10/2000 - 11/30/2003 FY00: \$80,000 Total: \$80,000  
 Prin. Invest.: G BENEDEK  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1685 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5639**  
 THE ROLE OF CONVECTION AND GROWTH COMPETITION IN PHASE SELECTION IN MICROGRAVITY  
 05/11/2000 - 11/30/2003 FY00: \$85,000 Total: \$85,000  
 Prin. Invest.: M C FLEMING  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 13 - PHYSICS

**NAG 8 1688 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5640**  
 FORCES DURING MANUFACTURE AND ASSEMBLY OF MICROSCALE DISCRETE ELECTRONIC COMPONENTS  
 05/17/2000 - 11/30/2003 FY00: \$88,862 Total: \$88,862  
 Prin. Invest.: M CIMA  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1689 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5641**  
 FROM OXYGEN GENERATION TO METAL PRODUCTION: IN-SITU RESOURCE UTILIZATION BY MOLTEN OXIDE ELECTROLYSIS  
 06/05/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: R SADOWAY, NONE  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 9 836 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5642**  
 MICROGRAVITY TISSUE ENGINEERING  
 09/19/1995 - 08/31/2000 FY00: \$0 Total: \$4,371,496  
 Prin. Invest.: L E FREED  
 Tech. Officer: JSC/N R PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1003 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5643**  
 MICROGRAVITY INVESTIGATION & CREW REACTION IN O-G  
 04/29/1998 - 05/14/2001 FY00: \$92,617 Total: \$268,557  
 Prin. Invest.: D J NEWMAN, S BECK  
 Tech. Officer: JSC/B WOOLFORD  
 CASE Category: 56 - MEDICL

**NAG 9 1004 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5644**  
 ADVANCED DISPLAYS & CONTROLS FOR 6 DOF ORIENTATION  
 05/06/1998 - 06/09/2001 FY00: \$187,000 Total: \$453,055  
 Prin. Invest.: C M OMAN  
 Tech. Officer: JSC/J DETROVE  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1078 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5645**  
 SPACE STATION HUMAN FACTORS  
 01/21/1999 - 01/28/2000 FY00: \$0 Total: \$23,000  
 Prin. Invest.: J P CLARKE  
 Tech. Officer: JSC/H A ALDRIDGE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 1089 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5646**  
 ROBOTIC TECHNOLOGY AND FUTURE SPACE SUIT DEVELOPMENT  
 03/05/1999 - 02/28/2001 FY00: \$96,546 Total: \$313,643  
 Prin. Invest.: D J NEWMAN  
 Tech. Officer: JSC/B J WOOLFORD  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 9 1224 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5647**  
 FOKKER-PLANCK STUDIES OF HELICON OPERATION-VASIMR EXPERIMENT  
 03/23/2000 - 01/31/2001 FY00: \$80,000 Total: \$80,000  
 Prin. Invest.: K MOLVIG, O V BATISHCHAV  
 Tech. Officer: JSC/F R CHANG-DIAZ  
 CASE Category: 13 - PHYSICS

## MASSACHUSETTS

## NASA'S UNIVERSITY PROGRAM

**NAS 1 10090 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5648**  
 MID-DECK 0-GRAVITY DYNAMICS EXPERIMENT  
 12/06/1988 - 09/30/1999 FY00: \$1,457 Total: \$8,063,845  
 Prin. Invest.: E CROWLEY  
 Tech. Officer: LARC/L G CLARK, LARC/S M BECK  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAS 1 99126 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5649**  
 ASSESSMENT OF A MULTI-LEVEL ERROR ESTIMATION AND ADAPTIVE  
 GRID STRATEGY FOR AERODYNAMIC APPLICAT  
 07/16/1999 - 02/15/2000 FY00: -\$22 Total: \$45,923  
 Prin. Invest.: D L DARMOFAL  
 Tech. Officer: LARC/J L THOMAS  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAS 5 30612 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5650**  
 ALL SKY MONITOR INSTRUMENTS  
 12/15/1989 - 11/15/2003 FY00: \$751,000 Total: \$26,543,767  
 Prin. Invest.: H BRADT  
 Tech. Officer: GSFC/W DAVIS  
 CASE Category: 11 - ASTRONOMY

**NAS 5 31376 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5651**  
 RECURSIVE ESTIMATION OF GEOGRAPHICAL PRODUCTS WITH AIRS/AMSU  
 DATA (EOS INVESTIGATION)  
 01/10/1992 - 12/14/2001 FY00: \$260,000 Total: \$1,693,000  
 Prin. Invest.: D H STACLIN, P W ROSENKRANZ  
 Tech. Officer: GSFC/E KREINS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAS 5 31721 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5652**  
 EOS INVESTIGATION "GLOBAL HYDROLOGIC PROCESSES CLIMATE"  
 09/19/1991 - 08/31/1999 FY00: \$0 Total: \$703,250  
 Prin. Invest.: P EAGLESON  
 Tech. Officer: GSFC/W LAU  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 31728 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5653**  
 ACQUISITION OF VLBI CORRELATOR  
 03/19/1992 - 11/30/2000 FY00: \$569,729 Total: \$9,022,390  
 Prin. Invest.: A R WHITNEY  
 Tech. Officer: GSFC/B WILDES  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAS 5 32353 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5654**  
 MARK III VLBI SUPPORT  
 02/08/1994 - 04/22/1999 FY00: -\$14,427 Total: \$6,995,977  
 Prin. Invest.: A NEILL  
 Tech. Officer: GSFC/W WILDES  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAS 5 32929 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5655**  
 XRAY CCD/FPA FOR ASTRO-E  
 04/22/1996 - 06/30/2000 FY00: \$0 Total: \$5,000,457  
 Prin. Invest.: D RICKER  
 Tech. Officer: GSFC/J MURPHY  
 CASE Category: 13 - PHYSICS

**NAS 5 99007 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5656**  
 GLAS SCIENCE TEAM  
 12/02/1998 - 12/01/2004 FY00: \$155,000 Total: \$290,000  
 Prin. Invest.: T A HERRING  
 Tech. Officer: GSFC/G SMITH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 99181 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5657**  
 TRIANA FARADAY CUP.  
 03/17/1999 - 01/01/2001 FY00: \$130,000 Total: \$448,451  
 Prin. Invest.: A J LAZARUS  
 Tech. Officer: GSFC/K W OGILVIE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 5 99198 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5658**  
 PROVIDE PERSONNEL, FACILITIES, & EQUIPMENT NECESSARY TO SUPPORT  
 THE SPACE GEODESY PROGRAM.  
 04/23/1999 - 04/22/2004 FY00: \$2,199,027 Total: \$2,429,027  
 Prin. Invest.: G CARRIGAN  
 Tech. Officer: GSFC/W WILDES  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 8 37716 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5659**  
 CONDUCT AN X-RAY IMAGING SPECTROSCOPY SCIENTIFIC INVESTIGATION  
 07/23/1990 - 12/31/1999 FY00: \$600,000 Total: \$78,028,000  
 Prin. Invest.: G RICKER  
 Tech. Officer: MSFC/N B CUMINGS  
 CASE Category: 11 - ASTRONOMY

**NAS 8 38249 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5660**  
 AXAF (HETGS)  
 07/13/1990 - 09/30/2000 FY00: \$1,404,000 Total: \$26,748,000  
 Prin. Invest.: C R CANIZARES  
 Tech. Officer: MSFC/M E ROSENTHAL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAS 9 19536 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5661**  
 ROLE OF VISUAL CUES IN SPATIAL ORIENTATION  
 03/19/1996 - 09/30/2000 FY00: \$0 Total: \$998,827  
 Prin. Invest.: C M OMAN  
 Tech. Officer: SSC/S SAWYER  
 CASE Category: 56 - MEDICAL

**NASW 4690 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5662**  
 HIGH ENERGY TRANSIENT EXPERIMENT TO DETERMINE ORIGIN & NATURE  
 OF GAMMA-RAY BURSTS  
 03/30/1992 - 09/30/2000 FY00: \$1,975,034 Total: \$24,247,754  
 Prin. Invest.: G RICKER  
 Tech. Officer: HQ/D GILMAN, HQ/L KALUZIENSKI  
 CASE Category: 13 - PHYSICS

**NCC 1 323 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5663**  
 AEROELASTIC ANALYSIS OF ACTIVE TWIST ROTOR SYSTEM FOR  
 HELICOPTER VIBRATION REDUCTION  
 12/22/1998 - 10/31/2001 FY00: \$36,001 Total: \$144,430  
 Prin. Invest.: C E CESNIK, N W NAGOOD  
 Tech. Officer: LARC/M L WILBUR, LARC/W K WILKIE  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NCC 1 415 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5664**  
 PHYSICAL PROCESSES INFLUENCING ATMOSPHERIC TRACE CONSTITU-  
 ENTS MEASURED FROM AIRCRAFT IN TRACE-P (IS NRA)  
 09/21/2000 - 06/30/2003 FY00: \$156,642 Total: \$156,642  
 Prin. Invest.: R E NEWELL  
 Tech. Officer: LARC/J L RAPER, SR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 570 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5665**  
 PRINCIPAL INVESTIGATOR IN A BOX  
 12/29/1988 - 01/31/2001 FY00: \$0 Total: \$2,098,309  
 Prin. Invest.: L R YOUNG  
 Tech. Officer: ARC/S LAU, ARC/D A ROSENTHAL  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 985 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5666**  
 AUTOMATED FLUID FEATURE EXTRACTION FROM TRANSIENT SIMULA-  
 TIONS  
 04/01/1997 - 12/31/2000 FY00: \$42,433 Total: \$172,329  
 Prin. Invest.: R HAIMES  
 Tech. Officer: ARC/D L KAO, ARC/A VAZIRI  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 1040 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5667**  
 VERTICAL STRUCTURE OF ATMOSPHERIC SCALERS ON JUPITER,  
 SATURN & NEPTUNE  
 05/15/1998 - 06/30/1999 FY00: -\$4,622 Total: \$29,147  
 Prin. Invest.: H B HAMMEL  
 Tech. Officer: ARC/C P MCKAY  
 CASE Category: 11 - ASTRONOMY

**NCC 2 1044 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5668**  
 DRIVING PARAMETERS FOR DISTRIBUTED & CENTRALIZED AIR TRANS-  
 PORTATION ARCHITECTURES  
 06/24/1998 - 09/30/2000 FY00: \$47,078 Total: \$142,039  
 Prin. Invest.: E FERON  
 Tech. Officer: ARC/B SRIDHAR, ARC/K BILIMORIA  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NCC 2 1121 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5669**  
 MARSCAPE  
 05/21/1999 - 05/31/2001 FY00: \$0 Total: \$150,000  
 Prin. Invest.: J K SAUSBURY  
 Tech. Officer: ARC/H THOMAS  
 CASE Category: 46 - MECHANICAL ENGINEERING

**NCC 2 1147 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5670**  
 IMPLEMENTATION ISSUES FOR DEPARTURE PLANNING SYSTEMS  
 12/07/1999 - 11/30/2000 FY00: \$240,533 Total: \$240,533  
 Prin. Invest.: E FERON, R J HANSMAN  
 Tech. Officer: ARC/S ATKINS  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NCC 2 1150 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5671**  
 SAFETY METRICS FOR HUMAN-COMPUTER CONTROLLED SYSTEM  
 12/28/1999 - 12/31/2000 FY00: \$195,940 Total: \$195,940  
 Prin. Invest.: N LEVESON  
 Tech. Officer: ARC/S YASSINI  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5253 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5672**  
 RESEARCH ON HELICOPTER BLADE BENDING MEASUREMENT AND  
 CONTROL  
 02/06/1998 - 03/31/2000 FY00: \$0 Total: \$25,003  
 Prin. Invest.: N D HAM  
 Tech. Officer: ARC/J W FLETCHER, ARC/M B TISCHLER  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NCC 3 610 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5673**  
 THE EXTENSIONAL RHEOLOGY OF NON-NEWTONIAN MATERIAL EXTEN-  
 SIONAL RHEOLOGY EXPERIMENT (ERE)  
 04/21/1998 - 02/09/2003 FY00: \$200,000 Total: \$550,000  
 Prin. Invest.: G H MCKINLEY  
 Tech. Officer: GRC/N R HALL  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 3 632 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5674**  
 MIT ENGINEERING INTERSHIP PROGRAM  
 06/30/1998 - 05/31/2001 FY00: \$37,000 Total: \$118,000  
 Prin. Invest.: I A WATZ  
 Tech. Officer: GRC/L POVINELLI  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NCC 4 123 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5675**  
 DESIGN & EVALUATION OF FLIGHT CONTROL SYSTEMS  
 04/28/1999 - 09/30/2000 FY00: \$23,321 Total: \$83,321  
 Prin. Invest.: J D PADUANO  
 Tech. Officer: DFRC/T MAINE, DFRC/J BURKEN  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NCC 5 212 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5676**  
 STUDENT RESEARCH ASSISTANTSHIPS FOR THE GODDARD/MI  
 GEOSCIENCE  
 07/08/1997 - 12/31/1999 FY00: \$0 Total: \$300,000  
 Prin. Invest.: T H JORDAN  
 Tech. Officer: GSFC/D E SMITH  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NCC 5 239 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5677**  
 EXAMINE AND CONFIRM THE APPROPRIATENESS OF THE STUD IMP 8  
 PLASMA KEY PARAMETERS.  
 09/12/1997 - 09/14/1999 FY00: -\$43 Total: \$50,663  
 Prin. Invest.: D LAZARUS  
 Tech. Officer: GSFC/R KESSEL  
 CASE Category: 13 - PHYSICS

**NCC 5 244 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5678**  
 BIOGEOCHEMICAL CYCLES USING MODELS AND DATA  
 10/24/1997 - 06/30/2001 FY00: \$214,750 Total: \$727,000  
 Prin. Invest.: J MARSHALL  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NCC 5 330 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5679**  
 DEVELOPMENT OF ACCURATE STRUCTURE FOR MOUNTING AND ALIGNING  
 THIN FOIL X-RAY MIRRORS.  
 05/07/1998 - 11/14/2000 FY00: \$0 Total: \$168,177  
 Prin. Invest.: M SCHATTENBURG Prin. Invest.: NONE  
 Tech. Officer: GSFC/R PETRE  
 CASE Category: 11 - ASTRONOMY

**NCC 5 416 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5680**  
 SOIL MOISTURE DATA ASSIMILATION FOR CONTINENTAL- SCALE LAND  
 SURFACE HYDROLOGY APPLICATIONS  
 08/04/1999 - 07/31/2001 FY00: \$80,517 Total: \$134,167  
 Prin. Invest.: D MCLAUGHLIN  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 8 174 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5681**  
 R/S MICROGRAVITY TISSUE ENGINEERING  
 03/31/1999 - 11/30/2002 FY00: \$862,999 Total: \$1,486,663  
 Prin. Invest.: L FREES  
 Tech. Officer: MSFC/K HIGGINBOTHAM  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 9 63 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5682**  
 CONTROL OF FLEXIBLE CONSTRUCTION SYSTEM  
 08/28/1997 - 10/31/1999 FY00: \$0 Total: \$473,991  
 Prin. Invest.: D W MILLER  
 Tech. Officer: JSC/C PARRA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 2 52256 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5683**  
 APPLYING 'HUMAN-CENTERED COMPUTING' METHODS TO THE DESIGN &  
 EVALUATION OF COMPLEX ADAPTIVE HABITABL  
 07/20/1999 - 07/31/1999 FY00: -\$14,155 Total: \$7,845  
 Prin. Invest.: S LERMAN, S A RODRIGUEZ  
 Tech. Officer: ARC/W CLANCEY, ARC/S LAU  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 3 52358 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5684**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 07/15/1999 - 04/21/2000 FY00: -\$22,000 Total: \$0  
 Prin. Invest.: D D CLARK  
 Tech. Officer: GRC/F J MONTGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 3 52360 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5685**  
 GRADUATE STUDENT RESEARCHER PROGRAM GRADUATE STUDENT  
 RESEARCHER PROGRAM  
 07/15/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: G H MCKINLEY  
 Tech. Officer: GRC/F J MONTGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 5 30145 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5686**  
 TWO-WAY SURFACE WATER-GROUNDWATER INTERACTION: SPA TIAL  
 ORGANIZATION OF HYDROLOGIC PROCESSES OVER C  
 08/31/1998 - 08/31/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: D ENTEKHABI  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30188 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5687**  
 THE IMPACT OF GLACIAL EROSION ON THE RELIEF STRUCTURE OF  
 MOUNTAIN BELTS STUDENT: SIMON BROCKLEHURS  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: K X WHIPPLE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30189 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5688**  
 TEMPORAL VARIABILITY OF AIR - SEA GAS FLUXES: ESTIMATION &  
 INCORPORATION INTO AN INVERSE MODEL OF  
 08/18/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: J MARSHALL  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30190 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5689**  
 ADJOINT SENSITIVITY ANALYSIS OF THE COUPLED LAND- ATMOSPHERE  
 SYSTEM/STUDENT: STEVEN A. MARGULIS  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: D ENTEKHABI  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30200 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5690**  
 AN INVESTIGATION OF STRATOSPHERIC TRANSPORT USING THE "LEAKY  
 PIPE" MODEL STUDENT: JESSICA NEU  
 08/24/1999 - 08/31/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: R A PLUMB  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30212 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5691**  
 THE SIGNATURE OF CLIMATIC & TECTONIC PROCESSES IN ALLUVIAL  
 FANS: A NUMERICAL MODELING & REMOTE SENS  
 08/20/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: R L BRAS  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30334 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5692**  
 MULTIPHASE AND HETEROGENEOUS PROCESSES IN ATMOSPHERIC  
 CHEMISTRY  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: B TROUT  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30337 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5693**  
 DYNAMICS & SCALES OF VARIABILITY IN THE LABRADOR SEA: STATE  
 ESTIMATION USING AN EDDY-RESOLVING  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: C WUNSCH  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30339 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5694**  
 EFFECTS OF VEGETATION DYNAMICS ON ARROYO & GULLY EVOLUTION &  
 SUSCEPTABILITY TO CLIMATE CHANGE  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R BRAS  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40048 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5695**  
 NATIONAL SPACE GRANT \_COLLEGE AND FELLOWSHIP PROGRAM  
 01/24/1997 - 01/31/2001 FY00: \$475,000 Total: \$1,839,999  
 Prin. Invest.: L R YOUNG  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NGT 5 50302 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5696**  
 COMBUSTION SYNTHESIS OF FULLERENES AND FULLERENIC NANOS-  
 TRUCTURES IN MICROGRAVITY/STUDENT: ANISH GOEL  
 07/06/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J B HOWARD  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50306 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5697**  
 THE KINETICS OF COMPETITIVE GROWTH DURING RAPID SOLIDIFICATION  
 OF TERNARY STEEL ALLOYS/STUDENT JOA  
 07/06/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: M FLEMINGS  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 8 52860 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5698**  
 CHARACTERIZATION OF THERMAL SUBSYSTEMS FOR A MICROGRAVITY  
 BRIDGMAN CRYSTAL GROWTH FURNACE  
 07/23/1998 - 08/13/2000 FY00: \$0 Total: \$6,667  
 Prin. Invest.: A F WITT  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT 8 52880 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5699**  
 IDENTIFICATION AND CONTROL OF GRAVITY RELATED DEFECT FORMA-  
 TION DURING MELT GROWTH  
 09/09/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: A WITT  
 Tech. Officer: MSFC/J DOWDY  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 8 52892 MASSACHUSETTS INSTITUTE OF TECHNOLOGY 5700**  
 BALANCE OF PLANT DESIGN AND ANALYSIS FOR SPACE NUCLEAR POWER  
 OPTIONS  
 07/11/2000 - 06/30/2003 FY00: \$0 Total: \$0  
 Prin. Invest.: M MARTINEZ-SANCHEZ  
 Tech. Officer: MSFC/S NASH-STEVENSON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 6132 MT HOLYOKE COLLEGE 5701**  
 SUMMER MATH FOR MINORITY GIRLS. PROPOSED PERIOD OF  
 01/01/97-12/31/97  
 08/13/1997 - 12/31/1999 FY00: \$0 Total: \$352,608  
 Prin. Invest.: C MORROW  
 Tech. Officer: GSFC/M STOUTSENBERGER  
 CASE Category: 21 - MATHEMATICS

**NAG 5 8635 MT HOLYOKE COLLEGE 5702**  
 CO2 AND CH4 EXCHANGE IN NORTHERN PEATLANDS  
 07/07/1999 - 06/30/2001 FY00: \$137,000 Total: \$254,337  
 Prin. Invest.: J L BUBIER  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1254 NORTHEASTERN UNIVERSITY 5703**  
 THE ROLE OF DYNAMIC NUCLEATION AT MOVING BOUNDARIES IN PHASE  
 AND MICROSTRUCTURE SELECTION  
 05/10/1996 - 05/09/2001 FY00: \$105,000 Total: \$800,000  
 Prin. Invest.: A KARMA, R TRIVEDI  
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1485 NORTHEASTERN UNIVERSITY 5704**  
 R/S MODELING OF MACROSCOPIC/MICROSCOPIC TRANSPORT AND  
 GROWTH PHENOMENA IN ZEOLITE CRYSTALS UNDER  
 04/27/1998 - 05/31/2001 FY00: \$100,000 Total: \$305,333  
 Prin. Invest.: A SACCO  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1668 NORTHEASTERN UNIVERSITY 5705**  
 PHASE FIELD SIMULATIONS OF DENDRITIC GROWTH AT LOW UNDER-  
 COOLING: CONFRONTING THEORY AND EXPERIMENT.  
 05/23/2000 - 03/11/2003 FY00: \$35,000 Total: \$35,000  
 Prin. Invest.: A KARMA  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 8 139 NORTHEASTERN UNIVERSITY 5706**  
 RESEARCH "CENTER FOR ADVANCED MICROGRAVITY MATERIALS PROC-  
 ESSING (CAMMP)"  
 06/27/1997 - 09/30/2001 FY00: \$2,543,655 Total: \$6,268,655  
 Prin. Invest.: A SACCO  
 Tech. Officer: MSFC/M NALL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 8120 SMITH COLLEGE 5707**  
 A DEEP HRI SURVEY OF LOW-MASS PMS STARS IN NGC 226 4 (ADP98)  
 02/19/1999 - 02/28/2001 FY00: \$0 Total: \$24,716  
 Prin. Invest.: B M PATTEN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 1 2049 TUFTS UNIVERSITY 5708**  
 MOVING LDAPS TO A REGIONAL-BASED PROGRAM NEW NASA RESEARCH  
 GRANT  
 04/13/1998 - 04/12/1999 FY00: -\$1 Total: \$36,590  
 Prin. Invest.: C B ROGERS  
 Tech. Officer: LARC/J M SEATON, LARC/M D CANRIGHT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6269 TUFTS UNIVERSITY 5709**  
 VLA OBSERVATIONS IN SUPPORT OF NASA SOLAR PHYSICS  
 08/21/1997 - 07/31/1999 FY00: \$0 Total: \$45,000  
 Prin. Invest.: P R LANG  
 Tech. Officer: GSFC/W G WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 8115 TUFTS UNIVERSITY 5710**  
 VLA-SOHO OBSERVATIONS OF BLINKERS AND CME'S 11  
 01/25/1999 - 01/31/2001 FY00: \$72,000 Total: \$112,000  
 Prin. Invest.: K R LANG  
 Tech. Officer: GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9725 TUFTS UNIVERSITY 5711**  
 VERY LARGE ARRAY OBSERVATIONS IN SUPPORT OF HESSI  
 07/06/2000 - 07/14/2001 FY00: \$35,000 Total: \$35,000  
 Prin. Invest.: K R LANG  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1311 TUFTS UNIVERSITY 5712**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY00: \$0 Total: \$55,000  
*Prin. Invest.:* K P LENTL  
*Tech. Officer:* MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 8 1480 TUFTS UNIVERSITY 5713**  
 STUDY OF DEVELOPMENT OF POLYMER STRUCTURE IN MICROGRAVITY  
 USING ELLIPSOmetry  
 02/27/1998 - 01/31/2002 FY00: \$85,000 Total: \$202,970  
*Prin. Invest.:* P CEBE  
*Tech. Officer:* MSFC/P M DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1699 TUFTS UNIVERSITY 5714**  
 RESEARCH STUDY HIERARCHICAL ASSEMBLY OF COLLAGEN  
 06/05/2000 - 11/03/2000 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* D L KAPLAN  
*Tech. Officer:* MSFC/P M DOTY  
 CASE Category: 56 - MEDICL

**NAG 9 1182 TUFTS UNIVERSITY 5715**  
 MULTISENSOR ARRAY FOR MONITORING WATER QUALITY ON SPACE-  
 CRAFT & PLANETARY HABITATS  
 12/20/1999 - 12/19/2002 FY00: \$111,475 Total: \$111,475  
*Prin. Invest.:* S P KOUNAVES  
*Tech. Officer:* JPL/D JAN  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAS 3 97002 TUFTS UNIVERSITY 5716**  
 NRA CONTRACT "HEAT CONDUCTIONS IN CERAMIC COATINGS RELATION-  
 SHIP/MICROSTRUCTURE & EFF. THERMAL COND.  
 11/07/1996 - 03/07/1999 FY00: \$0 Total: \$263,304  
*Prin. Invest.:* M KACHANOV  
*Tech. Officer:* GRC/R A MILLER  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 479 TUFTS UNIVERSITY 5717**  
 DECOUPLING THE ROLE OF INERTIA AND GRAVITY ON PARTICLE DISPERSION  
 06/01/1996 - 05/31/2001 FY00: \$15,001 Total: \$295,660  
*Prin. Invest.:* C ROGERS  
*Tech. Officer:* GRC/T K GLASGOW  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 5 434 TUFTS UNIVERSITY 5718**  
 THE SCIENCE AND ENGINEERING NASA SITE OF REMOTE SENSING  
 (SENSORS).  
 09/22/1999 - 09/30/2001 FY00: \$124,115 Total: \$184,115  
*Prin. Invest.:* C ROGERS  
*Tech. Officer:* GSFC/R E GABRYS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50050 TUFTS UNIVERSITY 5719**  
 CONTROL OF PARTICLE CONCENTRATION FIELD IN MICROGR  
 06/12/1997 - 06/31/1999 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* C B ROGERS  
*Tech. Officer:* GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1197 UNIV OF MASSACHUSETTS @ WORCESTER 5720**  
 EFFECTS OF GRAVITY ON CELL MOVEMENT & DEVELOPMENT  
 04/02/1998 - 04/30/2001 FY00: \$271,794 Total: \$502,851  
*Prin. Invest.:* Y L WANG  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1438 UNIV OF MASSACHUSETTS @ WORCESTER 5721**  
 THE EFFECT OF HYPERGRAVITY ON RETINOIC ACID SIGNALING IN THE  
 DEVELOPING EMBRYO  
 09/19/2000 - 09/30/2001 FY00: \$98,560 Total: \$98,560  
*Prin. Invest.:* P J MACCAFFERY  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1358 UNIV OF MASSACHUSETTS @ WORCESTER 5722**  
 R/S MICROGRAVITY AND THE BIOLOGY OF NEURAL STEM CELLS  
 06/19/1997 - 11/30/2000 FY00: \$170,991 Total: \$584,961  
*Prin. Invest.:* W J SHARTZ  
*Tech. Officer:* JSC/S R GONDA  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NAG 9 819 UNIV OF MASSACHUSETTS @ WORCESTER 5723**  
 STEM CELL EXPANSION IN ROTATING BIOREACTORS  
 08/17/1995 - 08/31/1999 FY00: \$0 Total: \$690,000  
*Prin. Invest.:* P J QUESENBERY  
*Tech. Officer:* JSC/N PELLIS  
 CASE Category: 56 - MEDICL

**NAG 9 820 UNIV OF MASSACHUSETTS @ WORCESTER 5724**  
 INFLUENCE OF MICROGRAVITY CONDITIONS ON GENE TRANSFER INTO  
 EXPANDED POPULATIONS  
 08/17/1995 - 09/17/1999 FY00: \$0 Total: \$850,000  
*Prin. Invest.:* F M STEWART  
*Tech. Officer:* JSC/N PELLIS  
 CASE Category: 56 - MEDICL

**NAG 1 1022 UNIVERSITY OF MASSACHUSETTS - AMHERST 5725**  
 GROUND-BASED MILLIMETER-WAVE MEASUREMENT OF OZONE IN THE  
 MIDDLE ATMOSPHERE  
 06/18/1989 - 12/31/2000 FY00: \$0 Total: \$1,526,585  
*Prin. Invest.:* A D PARRISH  
*Tech. Officer:* LARC/L E DEEVER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1375 UNIVERSITY OF MASSACHUSETTS - AMHERST 5726**  
 MICROGRAVITY EFFECTS ON SEED DEVELOPMENT AND MATURATION  
 08/20/1999 - 12/31/2000 FY00: \$144,542 Total: \$254,522  
*Prin. Invest.:* M E MUSGRAVE  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1384 UNIVERSITY OF MASSACHUSETTS - AMHERST 5727**  
 ON BOARD AUTONOMY FOR ROVERS  
 02/07/2000 - 01/31/2001 FY00: \$46,460 Total: \$46,460  
*Prin. Invest.:* S ZILBERSTEIN  
*Tech. Officer:* ARC/J BRESINA  
 CASE Category: 22 - COMPUTER SCIENCE

## NASA'S UNIVERSITY PROGRAM

## MASSACHUSETTS

**NAG 3 2452 UNIVERSITY OF MASSACHUSETTS - AMHERST 5728**  
 EMBEDDED SENSORS FOR CONDITION MONITORING OF HELIC OPTER  
 GEARBOXES PROPOSAL #100-1355  
 06/07/2000 - 09/30/2002 FY00: \$39,990 Total: \$39,990  
 Prin. Invest.: D DANAI  
 Tech. Officer: GRC/D LEWICKI  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 5 3653 UNIVERSITY OF MASSACHUSETTS - AMHERST 5729**  
 BOUNDARY CONDITIONS FOR THE PALEOENVIRONMENT:CHEMI  
 PROCESSES IN INTERSTELLAR CLOUDS  
 03/24/1997 - 10/14/1999 FY00: \$0 Total: \$148,639  
 Prin. Invest.: D M IRVINE  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 3922 UNIVERSITY OF MASSACHUSETTS - AMHERST 5730**  
 ORIGIN OF QUASAR ABSORPTION LINES IN A COSMOLOGICA  
 03/24/1997 - 03/31/2001 FY00: \$0 Total: \$120,000  
 Prin. Invest.: N KATZ  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4064 UNIVERSITY OF MASSACHUSETTS - AMHERST 5731**  
 A THEORETICAL STUDY OF PROCESSES DRIVING THE FORMA  
 03/18/1997 - 03/31/2001 FY00: \$0 Total: \$151,330  
 Prin. Invest.: N KATZ  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4272 UNIVERSITY OF MASSACHUSETTS - AMHERST 5732**  
 A CRYOGENIC FREQUENCY MULTIPLIER CHAIN FOR 1000 GH  
 04/18/1997 - 12/31/2000 FY00: \$75,686 Total: \$227,684  
 Prin. Invest.: D R ERICKSON  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4373 UNIVERSITY OF MASSACHUSETTS - AMHERST 5733**  
 PLANETARY, TECTONICS, AREAL GEOLOGY, AND GEOLOGICA  
 04/25/1997 - 01/31/2001 FY00: \$40,945 Total: \$164,045  
 Prin. Invest.: D E MCGILL  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4652 UNIVERSITY OF MASSACHUSETTS - AMHERST 5734**  
 SHOCK AND THERMAL HISTORY OF IRON AND CHONDRITIC M  
 06/11/1997 - 02/28/2001 FY00: \$123,000 Total: \$522,000  
 Prin. Invest.: D I GOLDSTEIN  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4743 UNIVERSITY OF MASSACHUSETTS - AMHERST 5735**  
 MILLIMETER-WAVE AND RADIO STUDIES OF SOLAR SYSTEM  
 06/04/1997 - 05/31/1999 FY00: -\$768 Total: \$54,232  
 Prin. Invest.: D SCHLOERB  
 Tech. Officer: GSFC/W HUEBNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4999 UNIVERSITY OF MASSACHUSETTS - AMHERST 5736**  
 STRUCTURAL AND GEOMORPHIS EVOLUTION OF THE MARTIAN  
 07/24/1997 - 07/14/2001 FY00: \$0 Total: \$121,184  
 Prin. Invest.: G MCGILL  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6161 UNIVERSITY OF MASSACHUSETTS - AMHERST 5737**  
 UMASS PLANET EARTH EDUCATION PROGRMS  
 08/01/1997 - 10/31/2000 FY00: \$20,000 Total: \$60,000  
 Prin. Invest.: M STERNHEIM  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6612 UNIVERSITY OF MASSACHUSETTS - AMHERST 5738**  
 MILLIMETER-WAVE AND RADIO STUDIES OF SOLAR SYSTEM OBJECTS  
 02/12/1998 - 12/31/1999 FY00: \$0 Total: \$148,246  
 Prin. Invest.: F SCHLOERB  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6701 UNIVERSITY OF MASSACHUSETTS - AMHERST 5739**  
 ENVIRONMENTAL EVOLUTION. LIFE'S EFFECTS ON THE AR CHEAN AND  
 PROTEROZOIC EARTH: AN INTEGRATED RESEA  
 12/04/1997 - 01/31/2001 FY00: \$0 Total: \$256,225  
 Prin. Invest.: L MARGULIS  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 6848 UNIVERSITY OF MASSACHUSETTS - AMHERST 5740**  
 DUST, GAS AND STAR FORMATION IN ANDROMEDA (M31) A ND 7,500  
 01/12/1998 - 12/31/1999 FY00: \$0 Total: \$58,672  
 Prin. Invest.: J YOUNG  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7575 UNIVERSITY OF MASSACHUSETTS - AMHERST 5741**  
 COMPUTING OUR ORIGINS  
 07/28/1998 - 05/31/2000 FY00: \$0 Total: \$51,942  
 Prin. Invest.: N KATZ  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7651 UNIVERSITY OF MASSACHUSETTS - AMHERST 5742**  
 LOW-NOISE HOT ELECTRON BOLOMETRIC HETERODYNE RECEI VERS  
 FOR THE THZREGION, USING NBN  
 09/17/1998 - 08/31/1999 FY00: \$0 Total: \$60,199  
 Prin. Invest.: K YNGVESSON  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8184 UNIVERSITY OF MASSACHUSETTS - AMHERST 5743**  
 MARTIAN POLYGONAL TERRAIN: TESTS FOR SEDIMENTARY O RIGIN OF  
 DEPOSITS  
 02/16/1999 - 03/14/2001 FY00: \$17,000 Total: \$34,300  
 Prin. Invest.: G E MCGILL  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8197 UNIVERSITY OF MASSACHUSETTS - AMHERST 5744**  
 SCALABLE PARALLEL STATISTICAL INFERENCE AND MODEL COMPARISON  
 USING LARGE DATABASES  
 02/04/1999 - 01/31/2001 FY00: \$230,000 Total: \$455,067  
 Prin. Invest.: M WEINBERG  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8718 UNIVERSITY OF MASSACHUSETTS - AMHERST 5745**  
 BOUNDARY CONDITIONS FOR THE PALEOENVIRONMENT: THE CHEMISTRY  
 OF DENSE INTERSTELLAR CLOUDS & COMETS  
 07/29/1999 - 10/14/2000 FY00: \$0 Total: \$79,277  
 Prin. Invest.: W M IRVINE  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8909 UNIVERSITY OF MASSACHUSETTS - AMHERST 5746**  
 STRUCTURAL AND GEOMORPHIC EVOLUTION OF THE MARTIAN CRUST  
 01/04/2000 - 07/14/2001 FY00: \$41,681 Total: \$41,681  
 Prin. Invest.: G E MCGILL, NONE  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8999 UNIVERSITY OF MASSACHUSETTS - AMHERST 5747**  
 THE HOT INTERSTELLAR MEDIUM (LTSA)  
 02/03/2000 - 01/31/2001 FY00: \$101,886 Total: \$101,886  
 Prin. Invest.: Q WANG  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9429 UNIVERSITY OF MASSACHUSETTS - AMHERST 5748**  
 X-RAY SOURCE POPULATION IN NEARBY DISK GALAXIES- ADP-99  
 04/11/2000 - 04/14/2001 FY00: \$46,762 Total: \$46,762  
 Prin. Invest.: Q WANG  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9630 UNIVERSITY OF MASSACHUSETTS - AMHERST 5749**  
 DUAL POL DUAL FREQUENCY ANTENNA ELEMENTS FOR INTEG RATED  
 SENSOR MODULES.  
 05/25/2000 - 04/30/2001 FY00: \$59,772 Total: \$59,772  
 Prin. Invest.: K CARVER  
 Tech. Officer: GSFC/T A DOIRON  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 9652 UNIVERSITY OF MASSACHUSETTS - AMHERST 5750**  
 CONTINUED GROUND-BASED MICROWAVE MEASUREMENTS OF OZONE  
 FOR THE NETWORK FOR DETECTION OF STRATOSPHER  
 05/26/2000 - 12/31/2000 FY00: \$166,477 Total: \$166,477  
 Prin. Invest.: A PARRISH  
 Tech. Officer: GSFC/M KURYLO  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1490 UNIVERSITY OF MASSACHUSETTS - AMHERST 5751**  
 IMPROVING HURRICANE LANDFALL INTENSITY FORECASTS THRU MICRO-  
 WAVE REMOTE SENSING OF SURFACE WIND  
 01/30/1998 - 02/01/2000 FY00: -\$3,478 Total: \$158,438  
 Prin. Invest.: C T SWIFT  
 Tech. Officer: MSFC/J ARNOLD, HQ/R K KAKAR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1694 UNIVERSITY OF MASSACHUSETTS - AMHERST 5752**  
 CAPILLARY WAVES AT INTERFACES: THE ROLE OF GRAVITY AND ELEC-  
 TRIC FIELDS  
 06/01/2000 - 11/30/2003 FY00: \$80,000 Total: \$80,000  
 Prin. Invest.: T P RUSSELL  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 8 1697 UNIVERSITY OF MASSACHUSETTS - AMHERST 5753**  
 THIN FILM MOLECULAR SIEVE SYNTHESIS: PROCESSING MICROSTRUC-  
 TURE RELATIONSHIPS & EFFECTS OF GRAVITY  
 06/06/2000 - 11/30/2001 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: M TSAPATIS, NONE  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 49 - ENGINEERING, OTHER

**NAGW 4514 UNIVERSITY OF MASSACHUSETTS - AMHERST 5754**  
 SHOCK AND THERMAL HISTORY OF IRON AND CHONDRITIC M ETEORITES  
 07/12/1995 - 12/31/1998 FY00: -\$426 Total: \$296,836  
 Prin. Invest.: J GOLDSTEIN  
 Tech. Officer: HQ/D NAVA  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAS 3 00121 UNIVERSITY OF MASSACHUSETTS - AMHERST 5755**  
 ALLIANCE ICING RESEARCH STUDY  
 04/30/2000 - 11/15/2000 FY00: \$118,000 Total: \$118,000  
 Prin. Invest.: S SEKELSEY  
 Tech. Officer: GRC/A REEHORST  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAS 5 99133 UNIVERSITY OF MASSACHUSETTS - AMHERST 5756**  
 TWO DIMENSIONAL SYNTHETIC APARTURE RADIOMETER.  
 08/03/1999 - 08/02/2002 FY00: \$95,300 Total: \$131,400  
 Prin. Invest.: K CARVER  
 Tech. Officer: GSFC/D LEVINE  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 2 1180 UNIVERSITY OF MASSACHUSETTS - AMHERST 5757**  
 MULTI-AGENT INFORMATION ENVIRONMENT FOR INTEGRATE D DESIGN  
 AND ANALYSIS.....  
 05/16/2000 - 04/14/2001 FY00: \$65,918 Total: \$65,918  
 Prin. Invest.: A DASCHMULCH  
 Tech. Officer: ARC/M E LIVINGSTON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 3 672 UNIVERSITY OF MASSACHUSETTS - AMHERST 5758**  
 DEVELOPMENT OF NOVEL HIGH TEMPERATURE THIN FILM TH ERMOCOUP-  
 LES  
 03/03/1999 - 03/31/2000 FY00: -\$1 Total: \$37,999  
 Prin. Invest.: S B DESU, NONE  
 Tech. Officer: GRC/G C FRALICK  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT 9 32 UNIVERSITY OF MASSACHUSETTS - AMHERST 5759**  
 TRAINING GRANT  
 06/04/1998 - 08/31/2001 FY00: \$22,000 Total: \$86,000  
 Prin. Invest.: R E VAN EMMERIK  
 Tech. Officer: JSC/D G SICKOREZ  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER



**NAG 5 6805 UNIVERSITY OF MASSACHUSETTS-DARTMOUTH 5760**  
 INTERANNUAL PHYSICAL AND BIOLOGICAL VARIABILITY OF THE NORTH-EAST U.S. COAST  
 12/11/1997 - 11/14/2000 FY00: \$56,823 Total: \$176,638  
 Prin. Invest.: J BISAGNI  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9752 UNIVERSITY OF MASSACHUSETTS-DARTMOUTH 5761**  
 REGIONAL FISHERIES APPLICATION CENTER  
 06/22/2000 - 09/30/2001 FY00: \$1,831,000 Total: \$1,831,000  
 Prin. Invest.: B J ROTHSCHILD  
 Tech. Officer: GSFC/D R KAHLE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 13 48 UNIVERSITY OF MASSACHUSETTS-DARTMOUTH 5762**  
 ADVANCED FISHERIES MANAGEMENT INFORMATION SYSTEM  
 04/23/1997 - 05/31/2000 FY00: \$338,039 Total: \$1,199,159  
 Prin. Invest.: B ROTHSCHILD  
 Tech. Officer: SSC/D RISNER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4046 WELLESLEY COLLEGE 5763**  
 STRUCTURE AND DYNAMICS OF PLANETARY RINGS  
 03/10/1997 - 09/30/2001 FY00: \$42,750 Total: \$174,750  
 Prin. Invest.: R G FRENCH  
 Tech. Officer: GSFC/J G GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6222 WELLESLEY COLLEGE 5764**  
 HIGH-RESOLUTION LABORATORY MEASUREMENTS OF UV ABSORPTION AND LINE WIDTHS FOR SO<sub>2</sub> AND N<sub>2</sub>  
 08/25/1997 - 06/30/2000 FY00: \$0 Total: \$96,200  
 Prin. Invest.: D STARK  
 Tech. Officer: GSFC/S HOWARD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9059 WELLESLEY COLLEGE 5765**  
 LABORATORY MEASUREMENTS OF SO<sub>2</sub> AND N<sub>2</sub> ABSORPTION SPECTRA FOR PLANETARY ATMOSPHERES  
 02/15/2000 - 02/28/2001 FY00: \$58,121 Total: \$58,121  
 Prin. Invest.: D STARK  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7818 WILLIAMS COLLEGE 5766**  
 COORDINATED EIT OBSERVATIONS WITH ECLIPSE OBSERVATIONS  
 12/14/1998 - 12/14/1999 FY00: \$0 Total: \$24,811  
 Prin. Invest.: J M PASACHOFF  
 Tech. Officer: GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6455 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5767**  
 MODELING MESOSCALE BIOGEOCHEMICAL PROCESSES IN A T OPEX/ POSEIDON DIAMOND SURROUNDING THE U.S. JGOFS  
 11/04/1997 - 09/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: D J MCGILLICUDDY  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6456 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5768**  
 STUDYING THE ANNUAL AND INTER-ANNUAL VARIABILITY IN OCEAN COLOR USING SATELLITE DATA AND GLOBAL M  
 11/03/1997 - 09/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: D M GLOVER  
 Tech. Officer: GSFC/J A YODER  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 6660 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5769**  
 ISOTOPIC BIOGEOCHEMISTRY  
 11/25/1997 - 12/31/1999 FY00: \$0 Total: \$0  
 Prin. Invest.: D M HAYES  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 7348 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5770**  
 STUDIES OF HEAT, SALT, AND RADIATIVE FLUXES IN THE ARCTIC USING SATELLITE AND BUOY OBSERVAT  
 04/28/1998 - 04/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: J YANG  
 Tech. Officer: GSFC/J COMISO  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 7445 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5771**  
 OPTICAL CLASSIFICATION OF WATER TYPES FROM SEAWIFS DATA: A HYBRID APPROACH USING BOTH SEMI-AN  
 06/04/1998 - 08/31/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: H M SOSIK  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7538 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5772**  
 BIOLOGICAL INTERPRETATION OF OCEAN COLOR: OBSERVATIONS AND MODELS FOR WATERS OF THE MID-ATLANTIC  
 06/16/1998 - 02/28/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: H M SOSIK  
 Tech. Officer: GSFC/A C JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7770 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5773**  
 STUDIES OF ANTARCTIC SEA ICE AND SOUTHERN OCEAN TEMPERATURE MINIMUM LAYER USING SATELLITE AND I  
 10/22/1998 - 12/31/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: R A KRISHFIELD  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 441 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5774**  
 SEASONAL-TO-INTERANNUAL VARIATIONS IN THE INDIAN OCEAN USING THE NSIPP OCEAN MODEL SIMULATIONS  
 12/02/1999 - 11/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: L YU  
 Tech. Officer: GSFC/M RIENECKER  
 CASE Category: 33 - OCEANOGRAPHY

## MICHIGAN

## NASA'S UNIVERSITY PROGRAM

<b>NGT 5 30206 WOODS HOLE OCEANOGRAPHIC INSTITUTION 5775</b> INTERPRETATION OF VARIABILITY IN WATER COLUMN OPTICAL PROPERTIES THROUGH SINGLE-PARTICLE ANALYSIS 08/19/1999 - 08/31/2000 FY00: \$0 Total: \$0 <i>Prin. Invest.:</i> H SOSIK <i>Tech. Officer:</i> GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NCC 3 609 BAY MILLS COMMUNITY COLLEGE 5783</b> RENEWABLE ENERGY EDUCATION PROGRAM RENEWABLE ENERGY EDUCATION PROGRAM 04/17/1998 - 02/18/1999 FY00: \$0 Total: \$30,000 <i>Prin. Invest.:</i> T DAVIS <i>Tech. Officer:</i> GRC/A F HEPP CASE Category: 19 - PHYSICAL SCIENCE, OTHER
<b>NAG 3 2395 WORCESTER POLYTECHNIC INSTITUTE 5776</b> STABILITY AND HEAT TRANSFER CHARACTERISTICS OF CONDENSING FILMS IN REDUCED GRAVITY 04/14/2000 - 11/30/2003 FY00: \$43,086 Total: \$43,086 <i>Prin. Invest.:</i> D C HERMANSON <i>Tech. Officer:</i> GRC/F CHIARAMONTE CASE Category: 49 - ENGINEERING, OTHER	<b>NAG 5 6409 GRAND VALLEY STATE UNIVERSITY 5784</b> PROVIDES FUNDING FOR TECH SUPPORT FOR "GPS MONITORING OF STRAIN ACCUMULATION IN THE NEW MAD 10/24/1997 - 10/31/1999 FY00: \$0 Total: \$2,999 <i>Prin. Invest.:</i> J WEBER <i>Tech. Officer:</i> GSFC/B BILLS CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 3 2405 WORCESTER POLYTECHNIC INSTITUTE 5777</b> EXPERIMENTAL INVESTIGATION AND MODELING OF PULSED PLASMA THRUSTER PLUMES 05/03/2000 - 04/30/2001 FY00: \$49,940 Total: \$49,940 <i>Prin. Invest.:</i> D GATSONIS <i>Tech. Officer:</i> GRC/E J PENCIL CASE Category: 13 - PHYSICS	<b>NAG 1 1837 KETTERING UNIVERSITY 5785</b> STRUCTURAL OPTIMIZATION WITH COST MINIMIZATION USING NONLINEAR GOAL PROGRAMMING 05/29/1996 - 05/31/1999 FY00: -\$1 Total: \$135,375 <i>Prin. Invest.:</i> M EL-SAYED <i>Tech. Officer:</i> LARC/J M HOUSNER/W J ZBROUD CASE Category: 46 - MECHANICAL ENGR
<b>NAG 5 8578 WORCESTER POLYTECHNIC INSTITUTE 5778</b> FUNDING FOR UNSOLICITED PROPOSAL FOR "STUDENT PROJECTS AT THE GODDARD SPACE FLIGHT CENTER" 05/26/1999 - 06/30/2000 FY00: \$0 Total: \$15,000 <i>Prin. Invest.:</i> F J LOOFT <i>Tech. Officer:</i> GSFC/M R BROWN CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 1 2213 MICHIGAN STATE UNIVERSITY 5786</b> PENALTY-BASED FINITE ELEMENT INTERFACE TECHNOLOGY FOR ANALYSIS OF HOMOGENEOUS & COMPOSITE STRUCTURES 07/12/1999 - 06/30/2001 FY00: \$27,329 Total: \$54,656 <i>Prin. Invest.:</i> R C AVERILL <i>Tech. Officer:</i> LARC/J B RANSOM CASE Category: 46 - MECHANICAL ENGR
<b>NAG 5 9754 WORCESTER POLYTECHNIC INSTITUTE 5779</b> STUDENT PROJECTS AT THE GODDARD SPACE FLIGHT CENTER 06/23/2000 - 06/30/2001 FY00: \$15,000 Total: \$15,000 <i>Prin. Invest.:</i> F J LOOFT <i>Tech. Officer:</i> GSFC/M R BROWN CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 3 2203 MICHIGAN STATE UNIVERSITY 5787</b> CONTROL OF SHOCK-WAVE/BOUNDARY-LAYER INTERACTIONS WITH BLEED 09/25/1998 - 11/30/2000 FY00: \$0 Total: \$100,992 <i>Prin. Invest.:</i> T I SHIH <i>Tech. Officer:</i> GRC/B P WILLIS CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 9 1014 WORCESTER POLYTECHNIC INSTITUTE 5780</b> GENESIS DISCOVERY MISSION PHASE B 05/12/1998 - 06/29/2000 FY00: \$0 Total: \$133,100 <i>Prin. Invest.:</i> K M RUTLEDGE <i>Tech. Officer:</i> JSC/K E CYR CASE Category: 19 - PHYSICAL SCIENCE, OTHER	<b>NAG 3 2234 MICHIGAN STATE UNIVERSITY 5788</b> DEVELOPMENT AND IMPLEMENTATION OF A GLOBAL BLEED BOUNDARY CONDITION 03/11/1999 - 01/20/2002 FY00: \$63,000 Total: \$123,000 <i>Prin. Invest.:</i> T SHIH <i>Tech. Officer:</i> GRC/D DAVIS CASE Category: 41 - AERONAUTICAL ENGR
<b>NCC 3 673 WORCESTER POLYTECHNIC INSTITUTE 5781</b> COMBUSTION CHARACTERISTICS OF FULLY-MODULATED, TURBULENT DIFFUSION FLAMES IN REDUCED GRAVITY 02/23/1999 - 01/13/2003 FY00: \$134,715 Total: \$191,098 <i>Prin. Invest.:</i> D C HERMANSON <i>Tech. Officer:</i> GRC/D P STOCKER CASE Category: 49 - ENGINEERING, OTHER	<b>NAG 3 2472 MICHIGAN STATE UNIVERSITY 5789</b> RESEARCHING EPOXY AND POLYIMIDE NANOCOMPOSITES USING NATURAL AND SYNTHETIC CLAYS 07/07/2000 - 10/06/2001 FY00: \$36,630 Total: \$36,630 <i>Prin. Invest.:</i> T J PINNAVAIA <i>Tech. Officer:</i> GRC/S G CAMPBELL CASE Category: 12 - CHEMISTRY
<b>MICHIGAN</b>	
<b>NAG 5 8799 BAY MILLS COMMUNITY COLLEGE 5782</b> YOU BE THE SCIENTIST PROGRAM 11/04/1999 - 11/14/2000 FY00: \$45,000 Total: \$45,000 <i>Prin. Invest.:</i> R DICKINSON <i>Tech. Officer:</i> GSFC/M COMBERIETE CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 5 3218 MICHIGAN STATE UNIVERSITY 5790</b> CCD SYSTEM TECHNOLOGY FOR EXTREMELY LOW BACKGROUND OBSERVATIONS 04/28/1996 - 09/30/2001 FY00: \$0 Total: \$497,500 <i>Prin. Invest.:</i> E D LOH <i>Tech. Officer:</i> GSFC/E CHENG CASE Category: 13 - PHYSICS

<b>NAG 5 4031</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5791</b> SOLAR CONVECTION AND ATMOSPHERIC DYNAMICS 02/24/1997 - 02/29/2000                      FY00: -\$24                      Total: \$206,976 <i>Prin. Invest.:</i> R F STEIN <i>Tech. Officer:</i> GSFC/W J WAGNER <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8317</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5799</b> ENHANCING PROFESSIONAL DEVELOPMENT OF LANDSCAPE ECOLOGISTS OF THE NEXT GENERATION 03/26/1999 - 02/28/2001                      FY00: \$10,000                      Total: \$20,000 <i>Prin. Invest.:</i> J LIU <i>Tech. Officer:</i> GSFC/A C JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 4810</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5792</b> ACQUISITION AND ANALYSIS OF LARGE QUANTITIES OF LA MEASURING TROPICAL LAND COVER CHANGE (NRA-MTPE-03) 07/30/1997 - 12/31/2000                      FY00: \$167,555                      Total: \$582,655 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/D WILLIAMS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 8893</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5800</b> ATOMIC FORCE MICROSCOPE LITHOGRAPHY & BEEM INVESTIGATION OF CARBON NANOTUBE INTERFACES 01/07/2000 - 01/14/2001                      FY00: \$5,000                      Total: \$5,000 <i>Prin. Invest.:</i> V AYRES <i>Tech. Officer:</i> GSFC/J M BENAVIDES <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR
<b>NAG 5 6042</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5793</b> HIERARCHICAL INVESTIGATION OF SOCIOECONOMIC DRIVER LAND- COVER CHANGES IN THE UPPER MIDWEST 07/23/1997 - 07/31/1999                      FY00: -\$3,678                      Total: \$265,189 <i>Prin. Invest.:</i> D BROWN <i>Tech. Officer:</i> GSFC/A JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 9232</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5801</b> PATTERN TO PROCESS: RESEARCH AND APPLICATIONS FOR UNDER- STANDING MULTIPLE INTERACTIONS & FEEDBACK ON 04/03/2000 - 04/30/2001                      FY00: \$155,539                      Total: \$155,539 <i>Prin. Invest.:</i> R WALKER <i>Tech. Officer:</i> GSFC/G GUTMAN <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 6538</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5794</b> CASE STUDIES AND DIAGNOSTIC MODELS OF THE INTER-ANNUAL DYNAMICS OF DEFORESTATION IN SOUTHEAST ASIA 04/21/1998 - 09/30/2001                      FY00: \$56,250                      Total: \$460,000 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/A JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 9276</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5802</b> SYNTHESIS OF HYBRID CARBON NANOTUBE/DIAMOND FILMS 03/16/2000 - 05/14/2001                      FY00: \$20,000                      Total: \$20,000 <i>Prin. Invest.:</i> D TOMANEK <i>Tech. Officer:</i> GSFC/H SHAW <i>CASE Category:</i> 13 - PHYSICS
<b>NAG 5 6638</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5795</b> LANDSAT PATHFINDER - HUMID TROPICAL FOREST PROJECT 11/18/1997 - 10/31/1999                      FY00: \$0                      Total: \$317,647 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/A JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 9286</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5803</b> GOFD DATA & INFORMATION FOR TROPICAL FOREST ASSESSMENT & MANAGEMENT 03/16/2000 - 04/30/2001                      FY00: \$80,818                      Total: \$80,818 <i>Prin. Invest.:</i> J QI <i>Tech. Officer:</i> HQ/G GUTMAN <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 7650</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5796</b> THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS 09/01/1998 - 12/31/1999                      FY00: \$0                      Total: \$36,000 <i>Prin. Invest.:</i> N WALKER <i>Tech. Officer:</i> GSFC/B W MESSON <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 5 9563</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5804</b> SOLAR SURFACE CONVECTION 05/09/2000 - 05/14/2001                      FY00: \$48,353                      Total: \$48,353 <i>Prin. Invest.:</i> R F STEIN <i>Tech. Officer:</i> GSFC/WJ WAGNER <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 7726</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5797</b> THEORETICAL INVESTIGATION OF TIME-DISTANCE HELIOSEISMOLO- GYNEW GRANT 09/24/1998 - 09/30/1999                      FY00: -\$137                      Total: \$43,863 <i>Prin. Invest.:</i> R F STEIN <i>Tech. Officer:</i> GSFC/J GURMAN <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER	<b>NAG 8 1575</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5805</b> MICROGRAVITY REGULATION OF ONCOGENE EXPRESSION AND OSTEO- BLAST DIFFERENTIATION. 02/17/1999 - 11/30/2002                      FY00: \$127,000                      Total: \$234,000 <i>Prin. Invest.:</i> L R MCCABE <i>Tech. Officer:</i> GSFC/B GUYNES <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)
<b>NAG 5 8053</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5798</b> SOLAR CONVECTION AND OSCILLATIONS 01/12/1999 - 01/14/2001                      FY00: \$96,000                      Total: \$156,000 <i>Prin. Invest.:</i> R F STEIN <i>Tech. Officer:</i> GSFC/J GURMAN <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER	<b>NAG 8 1690</b> <b>MICHIGAN STATE UNIVERSITY</b> <b>5806</b> INVESTIGATION OF SOLIDIFICATION PROCESS WITH CONVECTION USING MESHLESS METHODS & VERIFICATION 05/16/2000 - 11/30/2003                      FY00: \$45,061                      Total: \$45,061 <i>Prin. Invest.:</i> A BERNARD, M KOOCHESFAHANI, A DIAZ <i>Tech. Officer:</i> MSFC/P DOTY <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR

**NAG 9 1211 MICHIGAN STATE UNIVERSITY 5807**  
 WATER DRIVEN ALTERATION OF ROCKS & MINERALS ON MARS ASTEROIDS: CLUES TO THE SEARCH FOR LIFE  
 04/04/2000 - 09/30/2002 FY00: \$15,496 Total: \$15,496  
 Prin. Invest.: M A VELBEL  
 Tech. Officer: JSC/D S MCKAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 3 682 MICHIGAN STATE UNIVERSITY 5808**  
 INVESTIGATION OF DIFFUSION FLAME TIP INSTABILITY IN MICROGRAVITY  
 01/14/1999 - 01/03/2003 FY00: \$105,550 Total: \$155,918  
 Prin. Invest.: I S WICHMAN  
 Tech. Officer: GRC/S OLSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 291 MICHIGAN STATE UNIVERSITY 5809**  
 MEASUREMENT AND MODELING OF THE INTER-ANNUAL DYNAMICS OF DEFORESTATION AND REGROWTH IN THE BRAZIL  
 06/16/1998 - 12/31/2000 FY00: \$322,388 Total: \$715,136  
 Prin. Invest.: D SKOLE Prin. Invest.: NONE  
 Tech. Officer: GSFC/D DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 303 MICHIGAN STATE UNIVERSITY 5810**  
 CREATIVE & INNOVATIVE WORKING PROTOTYPE EARTH SCIENCE INFORMATION PARTNERSHIPS IN SUPPORT  
 04/09/1998 - 02/28/2001 FY00: \$1,180,000 Total: \$3,655,000  
 Prin. Invest.: D SKOLE  
 Tech. Officer: GSFC/M MAIDEN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52216 MICHIGAN STATE UNIVERSITY 5811**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/01/1999 - 06/30/2001 FY00: \$22,000 Total: \$32,000  
 Prin. Invest.: L M HUDY, A NAGUIB  
 Tech. Officer: LARC/W M HUMPHREYS, JR.  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 30166 MICHIGAN STATE UNIVERSITY 5812**  
 MAPPING THE SPATIAL DISTRIBUTION OF BAMBOO IN A GIANT PANDA RESERVE: A STUDY OF THE RELATIONSHIP  
 09/01/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: J LIU  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30340 MICHIGAN STATE UNIVERSITY 5813**  
 MODELING THE SOCIO-ECONOMIC DRIVERS OF LAND USE & COVER CHANGE IN SOUTH AFRICA: INTEGRATING SOCIAL S  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D J CAMPBELL  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50150 MICHIGAN STATE UNIVERSITY 5814**  
 AN INTEGRATED ASSESSMENT OF THE CUMULATIVE IMPACTS ARCTIC DEVELOPMENT  
 09/11/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: P WEBBER  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT13 52715 MICHIGAN STATE UNIVERSITY 5815**  
 NASA GRADUATE STUDENT RESEARCHER PROGRAM FOR STACEY A.C. NELSON  
 10/01/1997 - 08/15/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: P SORRANO  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 3 2088 MICHIGAN TECHNOLOGICAL UNIVERSITY 5816**  
 NUMERICAL STUDIES OF THE LDI AND THE LPP/LDI GAS TURBINE COMBUSTOR CONCEPTS  
 12/23/1997 - 01/12/2001 FY00: \$108,636 Total: \$243,636  
 Prin. Invest.: S L YANG  
 Tech. Officer: GRC/R R TACINA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 3689 MICHIGAN TECHNOLOGICAL UNIVERSITY 5817**  
 COOL STARS ATMOSPHERIC MODELS. COMPUTATIONS OF HIGH  
 01/14/1997 - 08/31/2000 FY00: \$0 Total: \$141,278  
 Prin. Invest.: A BORYSOW  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4758 MICHIGAN TECHNOLOGICAL UNIVERSITY 5818**  
 CONTINUING THE SEARCH FOR GRAVITATIONAL LENSING IN  
 06/17/1997 - 08/31/2000 FY00: \$0 Total: \$46,000  
 Prin. Invest.: R J NEMIROFF  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5278 MICHIGAN TECHNOLOGICAL UNIVERSITY 5819**  
 OBSERVING AND MEASURING EARLY OPTICAL LIGHT CURVES FROM GAMMA-RAY BURSTS WITH LOTIS  
 06/21/2000 - 06/06/2002 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: R NEMIROFF  
 Tech. Officer: WFF/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 6310 MICHIGAN TECHNOLOGICAL UNIVERSITY 5820**  
 LINEAR ADAPTIVE MIRROR TESTBED TO SUPPORT DIRECT DETECTION OF EXTRA-SOLAR PLANETS  
 10/06/1997 - 06/14/2001 FY00: \$7,000 Total: \$224,768  
 Prin. Invest.: D FTACLAS  
 Tech. Officer: GSFC/B CAMPBELL  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7051 MICHIGAN TECHNOLOGICAL UNIVERSITY 5821**  
 LAKE SUPERIOR ICE FIELD MEASUREMENTS FOR C-BAND SAR BACKSCATTER SIGNATURES AND ICE COVER ANALYSIS  
 03/12/1998 - 02/28/2001 FY00: \$2,849 Total: \$144,425  
 Prin. Invest.: D PILANT  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7272 MICHIGAN TECHNOLOGICAL UNIVERSITY 5822**  
 VOLCANIC PLUME ANALYSIS USING TOMS AND AVHRR DATA  
 04/30/1998 - 11/01/2000 FY00: \$97,026 Total: \$132,026  
 Prin. Invest.: W ROSE  
 Tech. Officer: GSFC/A J KRUEGER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7576 MICHIGAN TECHNOLOGICAL UNIVERSITY 5823**  
 FUNDING FOR 'APPLICATION OF TOMS DATA TO VOLCANIC HAZARD  
 MITIGATION'(SENH98-0061)  
 08/04/1998 - 01/31/2001 FY00: \$80,000 Total: \$150,000  
 Prin. Invest.: G J BLUTH  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 8796 MICHIGAN TECHNOLOGICAL UNIVERSITY 5824**  
 EARTH AND SPACE SCIENCES PROJECT SERVICES FOR NASA HPCC  
 09/21/1999 - 09/30/2001 FY00: \$308,122 Total: \$374,122  
 Prin. Invest.: D MERKEY  
 Tech. Officer: GSFC/J R FISCHER  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 8 1478 MICHIGAN TECHNOLOGICAL UNIVERSITY 5825**  
 R/S GRAVITY INDUCED SETTLING IN INTERCONNECTED LIQUID SOLID  
 SYSTEMS  
 02/18/1998 - 01/31/2002 FY00: \$35,000 Total: \$173,833  
 Prin. Invest.: T H COURTNEY  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NGT 5 76 MICHIGAN TECHNOLOGICAL UNIVERSITY 5826**  
 COLLEEN RILEY TWO-DIMENSIONAL CHARACTERIZATION OF VOLCANIC  
 ASH-APPLICATIONS TO REMOTE SENSING ALGO  
 07/22/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: W I ROSE  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NGT 5 30028 MICHIGAN TECHNOLOGICAL UNIVERSITY 5827**  
 THE DYNAMICS OF HUMAN-DRIVEN LAND COVER CHANGE IN  
 10/23/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: P DEBANKER  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30154 MICHIGAN TECHNOLOGICAL UNIVERSITY 5828**  
 TEMPORAL ANALYSIS OF VOLCANIC AEROSOL AND ASH TRANSPORT  
 08/28/1998 - 08/31/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: G BLUTH, BARKER  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 1720 UNIVERSITY OF MICHIGAN - ANN ARBOR 5829**  
 COMPARISON OF DOUBLE ETALON VS. MULTIPLEXING FABRY-PEROT  
 INTERFEROMETERS FOR DETERMINING TOTAL  
 05/08/1995 - 12/31/1998 FY00: -\$2,098 Total: \$340,678  
 Prin. Invest.: W B COOK, P B HAYS  
 Tech. Officer: LARC/A M LARAR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1755 UNIVERSITY OF MICHIGAN - ANN ARBOR 5830**  
 THE MODELING AND EVALUATION OF THRUST LOSSES AND  
 PERFORMANCE OF HIGH-SPEED AEROSPACE ENGINES  
 09/20/1995 - 02/28/2000 FY00: \$1 Total: \$678,424  
 Prin. Invest.: A CARROLL, D ALBER  
 Tech. Officer: LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2042 UNIVERSITY OF MICHIGAN - ANN ARBOR 5831**  
 TROPOSPHERIC TRACE GAS BUDGETS: INTERACTIONS WITH AEROSOLS  
 04/23/1998 - 04/22/2001 FY00: \$138,000 Total: \$343,040  
 Prin. Invest.: J E PENNER  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2142 UNIVERSITY OF MICHIGAN - ANN ARBOR 5832**  
 DEVELOPMENT AND TEST OF A 1.4 GHZ DIRECT-SAMPLING DIGITAL  
 RADIOMETER FOR STAR AND FULLY POLARIMETRIC  
 02/02/1999 - 09/30/2000 FY00: \$70,001 Total: \$140,001  
 Prin. Invest.: A W ENGLAND, NONE  
 Tech. Officer: LARC/J W JOHNSON, LARC/R W LAWRENCE  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 1 2181 UNIVERSITY OF MICHIGAN - ANN ARBOR 5833**  
 DATA-BASED CLIMATOLOGIES AND STUDY OF THE OZONE BUDGET IN THE  
 TROPOPAUSE  
 03/31/1999 - 12/31/2001 FY00: \$20,000 Total: \$40,000  
 Prin. Invest.: M A CARROLL  
 Tech. Officer: LARC/G R MADDREA, LARC/L POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 3 1861 UNIVERSITY OF MICHIGAN - ANN ARBOR 5834**  
 ON THE BOUNDARY CONDITIONS AT AN OSCILLATING CONTACT LINE: A  
 PHYSICAL/NUMERICAL EXPERIMENTAL PROGRAM  
 05/21/1996 - 08/31/2000 FY00: \$79,000 Total: \$392,000  
 Prin. Invest.: M PERLIN  
 Tech. Officer: GRC/M WEISLOGEL  
 CASE Category: 13 - PHYSICS

**NAG 3 1878 UNIVERSITY OF MICHIGAN - ANN ARBOR 5835**  
 SOOT FORMATION IN FREELY-PROPAGATING LAMINAR PREMIXED  
 FLAMES  
 05/20/1996 - 06/30/2001 FY00: \$95,758 Total: \$361,254  
 Prin. Invest.: G M FAETH  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1880 UNIVERSITY OF MICHIGAN - ANN ARBOR 5836**  
 EXPERIMENTAL INVESTIGATION OF THE EFFECTS ON MISTUING ON THE  
 FORCED RESPONSE OF BLADE ASSEMBLY  
 05/22/1996 - 04/08/1999 FY00: \$0 Total: \$139,121  
 Prin. Invest.: C PIERRE  
 Tech. Officer: GRC/O MEHMED, GRC/G L STEFKO  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1900 UNIVERSITY OF MICHIGAN - ANN ARBOR 5837**  
 A STUDY OF NUCLEATE BOILING WITH FORCED CONVECTION IN  
 MICROGRAVITY  
 07/22/1996 - 07/21/2001 FY00: \$0 Total: \$199,920  
 Prin. Invest.: P MERTE, NONE  
 Tech. Officer: GRC/F CHIARAMONTE  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1952 UNIVERSITY OF MICHIGAN - ANN ARBOR 5838**  
 NUMERICAL MODELING OF LIQUID-VAPOR PHASE CHANGE  
 09/06/1996 - 08/14/2000 FY00: \$33,000 Total: \$221,418  
 Prin. Invest.: V S ARPACI  
 Tech. Officer: GRC/A T CHAI  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2048 UNIVERSITY OF MICHIGAN - ANN ARBOR 5839**  
 LAMINAR SOOT PROCESSES EXPERIMENT (LSP)  
 05/06/1997 - 04/30/2000 FY00: \$66,783 Total: \$596,227  
 Prin. Invest.: G M FAETH  
 Tech. Officer: GRC/D URBAN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2082 UNIVERSITY OF MICHIGAN - ANN ARBOR 5840**  
 STRATEGY 2000: RECRUITMENT, RETENTION, RECOGNITION; A  
 BALANCED APPROACH TO DIVERSITY AND EXCELLENCE  
 09/30/1997 - 08/22/2001 FY00: \$90,000 Total: \$199,760  
 Prin. Invest.: D E SCOTT, J W JONES  
 Tech. Officer: GRC/A GONZALEZ, GRC/S A MERRITT  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2091 UNIVERSITY OF MICHIGAN - ANN ARBOR 5841**  
 DEVELOPMENT OF A METHODOLOGY FOR CONDUCTING HALL THRUSTERS  
 EMI TESTS IN METAL VACUUM  
 03/12/1998 - 05/31/1999 FY00: \$0 Total: \$59,634  
 Prin. Invest.: A GALLIMORE  
 Tech. Officer: GRC/M A MANTENIEKS  
 CASE Category: 13 - PHYSICS

**NAG 3 2134 UNIVERSITY OF MICHIGAN - ANN ARBOR 5842**  
 MICROSCOPIC VISUALIZATION OF FLUID FLOW IN EVAPORATION DROP-  
 LETS AND ELECTRO-OSMOTIC FLOWS  
 03/03/1998 - 01/05/2002 FY00: \$87,000 Total: \$307,000  
 Prin. Invest.: R G LARSON  
 Tech. Officer: GRC/D W GRIFFIN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2162 UNIVERSITY OF MICHIGAN - ANN ARBOR 5843**  
 COMPUTATIONS OF BOILING IN MICROGRAVITY COMPUTATIONS OF  
 BOILING IN MICROGRAVITY  
 04/27/1998 - 02/09/2002 FY00: \$92,750 Total: \$252,000  
 Prin. Invest.: G TRYGGVASON, D JACQMIN  
 Tech. Officer: GRC/D F CHAO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2196 UNIVERSITY OF MICHIGAN - ANN ARBOR 5844**  
 FLUID MECHANICS OF CAPILLARY-ELASTIC INSTABILITIES IN THE  
 MICROGRAVITY ENVIRONMENT  
 09/03/1998 - 03/31/2001 FY00: \$95,000 Total: \$249,766  
 Prin. Invest.: J B GROTBERG  
 Tech. Officer: GRC/D F CHAO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2211 UNIVERSITY OF MICHIGAN - ANN ARBOR 5845**  
 CHF ENHANCEMENT ON METAL-GRAPHITE COMPOSITE SURFACES  
 11/19/1998 - 11/02/2000 FY00: \$0 Total: \$10,000  
 Prin. Invest.: W YANG  
 Tech. Officer: GRC/D F CHAO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2216 UNIVERSITY OF MICHIGAN - ANN ARBOR 5846**  
 USE OF LASER INDUCED FLOURESCENCE TO CHARACTERIZE DISCHARGE  
 CATHODE EROSIONS OF AN ION ENGINES  
 01/14/1999 - 01/24/2001 FY00: \$35,000 Total: \$84,999  
 Prin. Invest.: A D GALLIMORE  
 Tech. Officer: GRC/J S SOVEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2237 UNIVERSITY OF MICHIGAN - ANN ARBOR 5847**  
 LONG-TERM RELIABILITY OF HIGH-SPEED SIGE/SI HETERO JUNCTION  
 BIPOLAR TRANSISTORS  
 02/23/1999 - 01/24/2000 FY00: \$0 Total: \$70,000  
 Prin. Invest.: P BHATTACHARYA  
 Tech. Officer: GRC/G PONCHAK  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2307 UNIVERSITY OF MICHIGAN - ANN ARBOR 5848**  
 DEVELOPMENT OF A TWO-STAGE ION THRUSTER DEVELOPMENT OF A  
 TWO-STAGE ION THRUSTER  
 12/03/1998 - 11/23/2002 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: A D GALLIMORE  
 Tech. Officer: GRC/R S JANKOVSKY  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2330 UNIVERSITY OF MICHIGAN - ANN ARBOR 5849**  
 LONG-TERM RELIABILITY OF HIGH-SPEED SIGE/SI HETERO JUNCTION  
 BIPOLAR TRANSISTORS  
 02/10/2000 - 02/03/2001 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: P BHATTACHARYA  
 Tech. Officer: GRC/G PONCHAK  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2332 UNIVERSITY OF MICHIGAN - ANN ARBOR 5850**  
 COMPUTATIONAL MODELING OF THE EFFECT OF SECONDARY FORCES ON  
 THE PHASE DISTRIBUTION IN DISPERSED MULT  
 02/11/2000 - 11/30/2003 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: G TRYGGVASON, NONE  
 Tech. Officer: GRC/D F CHAO  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2346 UNIVERSITY OF MICHIGAN - ANN ARBOR 5851**  
 SYSTEMATIC IDENTIFICATION OF BLADE MISTUNING PARAMETERS FOR  
 BLISKS  
 03/07/2000 - 03/01/2001 FY00: \$39,000 Total: \$39,000  
 Prin. Invest.: C PIERRE  
 Tech. Officer: GRC/O MEHMED  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2356 UNIVERSITY OF MICHIGAN - ANN ARBOR 5852**  
 AGGREGATION AND GELATION IN SUSPENSIONS OF ANISOMETRIC  
 PARTICLES: STUDIES OF COLLOIDAL PLATELETS AND  
 03/15/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: M D SOLOMON  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2404 UNIVERSITY OF MICHIGAN - ANN ARBOR 5853**  
 LAMINAR SOOT PROCESSES (LSP) LAMINAR SOOT PROCESSES (LSP)  
 04/27/2000 - 12/31/2002 FY00: \$142,228 Total: \$142,228  
 Prin. Invest.: G M FAETH  
 Tech. Officer: GRC/D URBAN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2406 UNIVERSITY OF MICHIGAN - ANN ARBOR 5854**  
 USING NONLINEARITY AND CONTACT LINES TO CONTROL FLUID FLOW IN  
 MICROGRAVITY  
 04/27/2000 - 11/30/2003 FY00: \$49,919 Total: \$49,919  
 Prin. Invest.: M PERLIN  
 Tech. Officer: GRC/C LEK  
 CASE Category: 49 - ENGINEERING, OTHER

## NASA'S UNIVERSITY PROGRAM

MICHIGAN

<b>NAG 5 2869 UNIVERSITY OF MICHIGAN - ANN ARBOR 5855</b> STAR FORMATION STUDIES: DYNAMICS AND INFRARED SIGN ATURES 01/12/1995 - 07/14/2001 FY00: \$0 Total: \$225,000 <i>Prin. Invest.: F C ADAMS</i> <i>Tech. Officer: GSFC/D WEST</i> CASE Category: 11 - ASTRONOMY	<b>NAG 5 4315 UNIVERSITY OF MICHIGAN - ANN ARBOR 5863</b> MULTISCALE MODELING OF COMETARY ATMOSPHERES 04/12/1997 - 09/30/1999 FY00: -\$1,030 Total: \$66,352 <i>Prin. Invest.: P I GOMBOSI</i> <i>Tech. Officer: GSFC/J BERGSTRALH</i> CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 2876 UNIVERSITY OF MICHIGAN - ANN ARBOR 5856</b> WINDOWS TO THE UNIVERSE-AN EARTH AND SPACE SCIENCE INTER- NET-BASED ACTIVE LEARNING SYSTEM . . . . 01/19/1995 - 04/30/1999 FY00: \$0 Total: \$1,425,000 <i>Prin. Invest.: R JOHNSON</i> <i>Tech. Officer: GSFC/F HASLER</i> CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 4379 UNIVERSITY OF MICHIGAN - ANN ARBOR 5864</b> MARS 96 PARTICIPATING SCIENTIST: STABILITY OF THE 04/24/1997 - 05/31/1999 FY00: -\$196 Total: \$19,804 <i>Prin. Invest.: P K ATREYA</i> <i>Tech. Officer: GSFC/J BOYCE</i> CASE Category: 11 - ASTRONOMY
<b>NAG 5 3168 UNIVERSITY OF MICHIGAN - ANN ARBOR 5857</b> BUDGET OF NITROGEN COMPOUNDS IN THE GLOBAL ATMOSPHERE: OBSERVATIONS-BASED CLIMATOLOGIES . . . . 02/14/1996 - 08/31/2000 FY00: \$0 Total: \$144,800 <i>Prin. Invest.: M A CARROLL, G BRASSEUR</i> <i>Tech. Officer: GSFC/R W STEWART</i> CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4381 UNIVERSITY OF MICHIGAN - ANN ARBOR 5865</b> STUDIES OF TENUOUS PLANETARY ATMOSPHERES 04/29/1997 - 12/31/2000 FY00: \$49,455 Total: \$199,455 <i>Prin. Invest.: D R COMBI</i> <i>Tech. Officer: GSFC/D BOGAN</i> CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 3247 UNIVERSITY OF MICHIGAN - ANN ARBOR 5858</b> THE HOT INTERSTELLAR MEDIUM IN SPIRAL, ELLIPTICALS , AND CLUS- TERS OF GALAXIES 05/30/1996 - 04/30/2001 FY00: \$0 Total: \$516,000 <i>Prin. Invest.: J N BREGMAN</i> <i>Tech. Officer: GSFC/D WEST</i> CASE Category: 11 - ASTRONOMY	<b>NAG 5 4589 UNIVERSITY OF MICHIGAN - ANN ARBOR 5866</b> A PROGRAM FOR RESEARCH IN PLANETARY ATMOSPHERES: P COUPLED CLOUD PHYSICS 05/23/1997 - 06/30/2001 FY00: \$0 Total: \$249,000 <i>Prin. Invest.: P K ATREYA</i> <i>Tech. Officer: GSFC/R BEEBE</i> CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 3401 UNIVERSITY OF MICHIGAN - ANN ARBOR 5859</b> GALAXY CLUSTER EVOLUTION AND DYNAMICS AT THE PRESE 10/01/1996 - 09/30/1998 FY00: -\$44 Total: \$125,256 <i>Prin. Invest.: A E EVRARD</i> <i>Tech. Officer: GSFC/D K WEST</i> CASE Category: 11 - ASTRONOMY	<b>NAG 5 4714 UNIVERSITY OF MICHIGAN - ANN ARBOR 5867</b> DISTRIBUTION OF GASES IN THE INNER COMAE OF COMETS 06/23/1997 - 10/31/1999 FY00: \$0 Total: \$286,210 <i>Prin. Invest.: D R COMBI</i> <i>Tech. Officer: GSFC/D BOGAN</i> CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 4007 UNIVERSITY OF MICHIGAN - ANN ARBOR 5860</b> DYNAMICAL VARIATIONS IN THE MESOSPHERE AND LOWER T AND INTER- ANNUAL VARIABILITY 03/06/1997 - 04/30/2001 FY00: \$0 Total: \$213,729 <i>Prin. Invest.: D D SKINNER</i> <i>Tech. Officer: GSFC/M M MELLOTT</i> CASE Category: 13 - PHYSICS	<b>NAG 5 4771 UNIVERSITY OF MICHIGAN - ANN ARBOR 5868</b> STUDIES OF INNER MAGNETOSPHERIC PROCESSES AND THE UNDER- LYING ATMOSPHERE AND IONOSPHERE 06/09/1997 - 04/30/2001 FY00: \$93,745 Total: \$356,438 <i>Prin. Invest.: D U KOZYRA</i> <i>Tech. Officer: GSFC/J M SHARBER</i> CASE Category: 13 - PHYSICS
<b>NAG 5 4264 UNIVERSITY OF MICHIGAN - ANN ARBOR 5861</b> THEORETICAL STUDIES AND SATELLITE DATA ANALYSIS OF LOWER THER- MOSPHERE 04/07/1997 - 04/14/2000 FY00: \$0 Total: \$257,488 <i>Prin. Invest.: D L KILLEEN</i> <i>Tech. Officer: GSFC/M M MELLOTT</i> CASE Category: 13 - PHYSICS	<b>NAG 5 4912 UNIVERSITY OF MICHIGAN - ANN ARBOR 5869</b> MULTIDIMENSIONAL MHD MODEL STUDIES OF THE IONOSPHERE 07/02/1997 - 03/31/2000 FY00: \$0 Total: \$250,000 <i>Prin. Invest.: D F NAGY</i> <i>Tech. Officer: GSFC/J BERGSTRALH</i> CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 4271 UNIVERSITY OF MICHIGAN - ANN ARBOR 5862</b> STUDIES OF THE THERMOSPHERIC RESPONSE TO GEOMAGNETIC MINIMUM CONDITIONS 04/03/1997 - 04/30/2000 FY00: \$0 Total: \$219,299 <i>Prin. Invest.: D BURNS</i> <i>Tech. Officer: GSFC/M M MELLOTT</i> CASE Category: 13 - PHYSICS	<b>NAG 5 4939 UNIVERSITY OF MICHIGAN - ANN ARBOR 5870</b> DIGITAL TOPOGRAPHY FROM SAR INTERFEROMETRY: DETERMINATION OF VEGETATION HEIGHT 06/23/1997 - 09/30/2000 FY00: \$0 Total: \$110,777 <i>Prin. Invest.: K SARABANDI</i> <i>Tech. Officer: GSFC/D E WICKLAND</i> CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 5030 UNIVERSITY OF MICHIGAN - ANN ARBOR 5871**  
 SOLAR AND MAGNETOSPHERIC INPUTS TO THE MLTI REGION  
 03/03/1995 - 03/05/2005 FY00: \$106,000 Total: \$416,974  
 Prin. Invest.: J KOZYRA  
 Tech. Officer: GSFC/R PLESS  
 CASE Category: 13 - PHYSICS

**NAG 5 5049 UNIVERSITY OF MICHIGAN - ANN ARBOR 5872**  
 TIDI - A TIMED DOPPLER INTERFEROMETER NEW AWARD  
 12/04/1995 - 01/31/2001 FY00: \$0 Total: \$2,249,997  
 Prin. Invest.: T L KILLEN  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5059 UNIVERSITY OF MICHIGAN - ANN ARBOR 5873**  
 HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) FIRST YEAR OF FUNDING  
 05/01/1996 - 04/30/2000 FY00: \$0 Total: \$630,000  
 Prin. Invest.: G TARLE  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5101 UNIVERSITY OF MICHIGAN - ANN ARBOR 5874**  
 A DEEP REALTIME SEARCH FOR THE OPTICAL COUNTER- PARTS OF  
 BATSE & HETE EVENTS  
 02/11/1997 - 06/30/2000 FY00: \$0 Total: \$499,427  
 Prin. Invest.: C AKERLOF  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5121 UNIVERSITY OF MICHIGAN - ANN ARBOR 5875**  
 HALE-BOPP FUNDING FOR THE FIRST YEAR OF THE GRANT  
 02/06/1997 - 08/10/2000 FY00: \$0 Total: \$452,329  
 Prin. Invest.: J CLARK  
 Tech. Officer: GSFC/B J FLOWERS  
 CASE Category: 13 - PHYSICS

**NAG 5 5173 UNIVERSITY OF MICHIGAN - ANN ARBOR 5876**  
 STUDY OF AN IMAGING CALORIMETER FOR ACCESS FUNDING FOR FIRST  
 YEAR OF GRANT  
 03/05/1998 - 03/08/2001 FY00: \$30,000 Total: \$255,000  
 Prin. Invest.: G TARLE  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5230 UNIVERSITY OF MICHIGAN - ANN ARBOR 5877**  
 GRANT NAG5-5230 - HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) PI  
 PROF. GREGORY TARLE  
 03/16/1999 - 03/11/2002 FY00: \$193,500 Total: \$408,500  
 Prin. Invest.: G TARLE  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5262 UNIVERSITY OF MICHIGAN - ANN ARBOR 5878**  
 FIRST YEAR OF THREE YEAR EFFORT/ SOUNDING ROCKET UV  
 MEASUREMENTS  
 04/11/2000 - 03/23/2003 FY00: \$150,000 Total: \$150,000  
 Prin. Invest.: J T CLARK  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5261 UNIVERSITY OF MICHIGAN - ANN ARBOR 5879**  
 CONTEMPORANEOUS OPTICAL DETECTION OF GAMMA-RAY BURSTS  
 06/14/2000 - 06/07/2003 FY00: \$202,500 Total: \$202,500  
 Prin. Invest.: C W AKERLOFF  
 Tech. Officer: WFF/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 6083 UNIVERSITY OF MICHIGAN - ANN ARBOR 5880**  
 GLOBAL OBSERVATION OF PLANETARY-SCALE WAVES IN THE THERMO-  
 SPHERE FROM HRDI AND WINDII  
 08/26/1997 - 08/14/1999 FY00: \$0 Total: \$78,158  
 Prin. Invest.: D S LIEBERMAN  
 Tech. Officer: GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 6122 UNIVERSITY OF MICHIGAN - ANN ARBOR 5881**  
 SOHO GUEST INVESTIGATOR STUDY OF HYDROGEN LYMAN-AL WITH  
 SWAN  
 08/11/1997 - 02/28/2001 FY00: \$0 Total: \$94,236  
 Prin. Invest.: D R COMBI  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 6187 UNIVERSITY OF MICHIGAN - ANN ARBOR 5882**  
 STUDIES FOR THE LOSS OF ATOMIC AND MOLECULAR SPECI  
 07/30/1997 - 06/30/1999 FY00: -\$106 Total: \$80,440  
 Prin. Invest.: D R COMBI  
 Tech. Officer: GSFC/S HOWARD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6203 UNIVERSITY OF MICHIGAN - ANN ARBOR 5883**  
 AN INTEGRATED MODELING STUDY FOR COORDINATED OBSER VATIONS  
 OF H<sub>2</sub>O, OH, AND H<sub>2</sub>O + EMISSIONS IN THE CO  
 10/17/1997 - 08/31/2001 FY00: \$0 Total: \$70,954  
 Prin. Invest.: D R COMBI  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6471 UNIVERSITY OF MICHIGAN - ANN ARBOR 5884**  
 ENERGETIC PARTICLE PROPAGATION IN THE NEW MODEL FO R THE  
 HELIOSPHERIC MAGNETIC FIELD  
 11/17/1997 - 10/31/2000 FY00: \$0 Total: \$120,196  
 Prin. Invest.: T ZURBUCHEN  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6709 UNIVERSITY OF MICHIGAN - ANN ARBOR 5885**  
 CONTINUED SCIENTIFIC STUDIES OF THE MIDDLE ATMOSPHE RE BY THE  
 HIGHRESOLUTION DOPPLER IMAGER ( )  
 12/12/1997 - 12/14/2000 FY00: \$252,951 Total: \$789,000  
 Prin. Invest.: D SKINNER  
 Tech. Officer: GSFC/C JACKMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6827 UNIVERSITY OF MICHIGAN - ANN ARBOR 5886**  
 MODELING OF COMETARY ATMOSPHERES  
 01/15/1998 - 12/31/2000 FY00: \$79,944 Total: \$237,584  
 Prin. Invest.: T GOMBOSI  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY



**NAG 5 6883 UNIVERSITY OF MICHIGAN - ANN ARBOR 5887**  
 COMPARATIVE STUDY OF JUPITER'S AURORA: HST UV IMA GES AND  
 SPECTRA AND GALILEO DATA  
 01/30/1998 - 12/31/2000 FY00: \$50,868 Total: \$152,868  
 Prin. Invest.: J T CLARKE  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6960 UNIVERSITY OF MICHIGAN - ANN ARBOR 5888**  
 APPLICATION FOR SUPPORT 1998 SYMPOSIUM ON RADIATION  
 MEASUREMENTS AND APPLICATIONS  
 02/09/1998 - 07/31/1999 FY00: \$0 Total: \$10,000  
 Prin. Invest.: G KNOLL  
 Tech. Officer: GSFC/J I TROMBKA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7032 UNIVERSITY OF MICHIGAN - ANN ARBOR 5889**  
 MODELS OF RELATIVISTIC EXTRAGALACTIC JETS AND THE INTERPRETA-  
 TION OF VSOPDATA- ATP  
 02/17/1998 - 02/14/2000 FY00: \$0 Total: \$40,700  
 Prin. Invest.: P A HUGHES  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7474 UNIVERSITY OF MICHIGAN - ANN ARBOR 5890**  
 HIGH RESOLUTION DOPPLER IMAGER - OPERATIONS AND ALGORITHM-  
 MAINTENANCE  
 06/23/1998 - 06/30/2001 FY00: \$215,666 Total: \$570,500  
 Prin. Invest.: W SKINNER  
 Tech. Officer: GSFC/C H JACKMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7553 UNIVERSITY OF MICHIGAN - ANN ARBOR 5891**  
 APPLICATION OF MC-ICPMS TO THE MEASUREMENT OF ISOTOPIC ANOM-  
 ALIES IN Zr, MO, RU, SN, TE AND W  
 06/23/1998 - 06/30/2000 FY00: \$0 Total: \$120,000  
 Prin. Invest.: A N HALLIDAY  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7557 UNIVERSITY OF MICHIGAN - ANN ARBOR 5892**  
 GGS/POLAR TIDE CO-INVESTIGATOR PROGRAM MO&DA SUPPLEMENTAL  
 FUNDS  
 06/25/1998 - 06/30/2001 FY00: \$34,000 Total: \$124,000  
 Prin. Invest.: A NAGEY  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7565 UNIVERSITY OF MICHIGAN - ANN ARBOR 5893**  
 XTE PROPOSAL - CONTINUED RXTE OBSERVATIONS OF THREE  
 BLAZARS(30264)  
 07/09/1998 - 10/30/1999 FY00: -\$6 Total: \$1,244  
 Prin. Invest.: M ALLER  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7569 UNIVERSITY OF MICHIGAN - ANN ARBOR 5894**  
 PROVIDING THE GLOBAL MODELING INITIATIVE WITH MODELLING AND  
 ANALYSIS OF AEROSOLS EFFECTS  
 07/09/1998 - 07/31/2001 FY00: \$74,122 Total: \$225,273  
 Prin. Invest.: J E PENNER  
 Tech. Officer: GSFC/R W STEWART  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7681 UNIVERSITY OF MICHIGAN - ANN ARBOR 5895**  
 DEFINING A CLIMATOLOGY AND THE EFFECTS OF ABSORBING AERO-  
 SOLS: MODELS AND MEASUREMENTS  
 09/04/1998 - 06/31/2000 FY00: \$160,000 Total: \$320,000  
 Prin. Invest.: J PENNER  
 Tech. Officer: GSFC/M I MISHCHENKO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7765 UNIVERSITY OF MICHIGAN - ANN ARBOR 5896**  
 INVESTIGATION OF SOLAR WIND - MAGNETOSPHERE - IONOSPHERE  
 COUPLING USING POLAR UVI AND OTHER COORDINATES  
 01/06/1999 - 12/31/2000 FY00: \$0 Total: \$70,000  
 Prin. Invest.: R CLAUSER  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 7858 UNIVERSITY OF MICHIGAN - ANN ARBOR 5897**  
 MEASUREMENT OF ABSOLUTE DIFFERENTIAL CROSS SECTIONS FOR THE  
 COLLISIONS OF ELECTRONS WITH PLANETARY IONS  
 01/05/1999 - 12/31/2000 FY00: \$47,100 Total: \$127,100  
 Prin. Invest.: D SHYN  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7860 UNIVERSITY OF MICHIGAN - ANN ARBOR 5898**  
 THE SOLAR SYSTEM BEYOND PLUTO  
 01/06/1999 - 12/31/2000 FY00: \$44,321 Total: \$106,581  
 Prin. Invest.: D M BERNSTEIN  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8080 UNIVERSITY OF MICHIGAN - ANN ARBOR 5899**  
 STATE-TO-STATE RATE CONSTANTS FOR COMPUTATION OF NON-LTE  
 INFRARED RADIATIVE TRANSFER IN THE M  
 01/15/1999 - 03/31/2001 FY00: \$89,500 Total: \$184,500  
 Prin. Invest.: D R BARKER  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8238 UNIVERSITY OF MICHIGAN - ANN ARBOR 5900**  
 MASSIVE BLACK HOLES AND THE CENTERS OF GALAXIES (LTS98)  
 02/25/1999 - 02/28/2001 FY00: \$76,365 Total: \$149,944  
 Prin. Invest.: D O RICHSTONE  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8458 UNIVERSITY OF MICHIGAN - ANN ARBOR 5901**  
 MODELING OF X-RAY CLUSTERS (ATP 98)  
 04/15/1999 - 04/14/2001 FY00: \$0 Total: \$81,000  
 Prin. Invest.: A E EVRARD  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8494 UNIVERSITY OF MICHIGAN - ANN ARBOR 5902**  
 EXTEND THE DEVELOPMENT OF THE SPACE WEATHER TOPIC, AND ALSO  
 THE SPACE MISSIONS SECTION TO INCLUDE  
 05/04/1999 - 12/31/2000 FY00: \$0 Total: \$150,000  
*Prin. Invest.:* R M JOHNSON  
*Tech. Officer:* GSFC/A F HASLER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8577 UNIVERSITY OF MICHIGAN - ANN ARBOR 5903**  
 A CGRO TARGET OF OPPORTUNITY PROPOSAL FOR FLARING BLAZARS  
 05/27/1999 - 05/31/2000 FY00: \$0 Total: \$4,899  
*Prin. Invest.:* M F ALLER  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8630 UNIVERSITY OF MICHIGAN - ANN ARBOR 5904**  
 HIERARCHICAL INVESTIGATION OF SOCIOECONOMIC DRIVER OF  
 DECADAL SCALE LAND-COVER CHANGES IN THE UPPER  
 08/11/1999 - 04/30/2001 FY00: \$0 Total: \$73,879  
*Prin. Invest.:* D G BROWN  
*Tech. Officer:* GSFC/J RANSON  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8661 UNIVERSITY OF MICHIGAN - ANN ARBOR 5905**  
 MOISTURE TRANSPORT AND RADIOBRIGHTNESS MODELS FOR COMPLEX  
 VEGETATION  
 07/01/1999 - 06/30/2001 FY00: \$115,000 Total: \$192,050  
*Prin. Invest.:* A W ENGLAND  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8715 UNIVERSITY OF MICHIGAN - ANN ARBOR 5906**  
 DYNAMICS IN THE COMET ENVIRONMENT  
 08/03/1999 - 07/31/2001 FY00: \$22,500 Total: \$46,500  
*Prin. Invest.:* D J SCHEERES  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8719 UNIVERSITY OF MICHIGAN - ANN ARBOR 5907**  
 HIERARCHICAL INVESTIGATION OF SOCIOECONOMIC DRIVERS OF  
 DECADAL SCALE LAND-COVER CHANGES IN THE UPPER  
 08/02/1999 - 04/30/2001 FY00: \$0 Total: \$51,250  
*Prin. Invest.:* D G BROWN  
*Tech. Officer:* GSFC/J RANSON  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8845 UNIVERSITY OF MICHIGAN - ANN ARBOR 5908**  
 CASSINI-HUYGENS GAS CHROMATOGRAPH MASS SPECTROMETER  
 SCIENCE SUPPORT  
 10/25/1999 - 10/31/2000 FY00: \$25,000 Total: \$25,000  
*Prin. Invest.:* S K ATREYA  
*Tech. Officer:* GSFC/J E RICHARDS  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8930 UNIVERSITY OF MICHIGAN - ANN ARBOR 5909**  
 SOLID EARTH AND NATURAL HAZARDS RESEARCH AND APPLICATIONS  
 01/13/2000 - 01/14/2001 FY00: \$75,000 Total: \$75,000  
*Prin. Invest.:* K SARABANDI, NONE  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 8942 UNIVERSITY OF MICHIGAN - ANN ARBOR 5910**  
 THE DISTRIBUTION OF GASES IN THE INNER COMAE OF COMETS  
 01/14/2000 - 01/14/2001 FY00: \$120,000 Total: \$120,000  
*Prin. Invest.:* M R COMBI  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8946 UNIVERSITY OF MICHIGAN - ANN ARBOR 5911**  
 STUDIES OF SOLAR WIND INTERACTION AND IONOSPHERIC PROCESSES  
 AT VENUS AND MARS  
 01/14/2000 - 03/31/2001 FY00: \$85,000 Total: \$85,000  
*Prin. Invest.:* A NAGY  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8963 UNIVERSITY OF MICHIGAN - ANN ARBOR 5912**  
 FUSE SPECTRA OF LYMAN SERIES EMISSIONS FROM THE INTERPLANETARY  
 MEDIUM - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$38,400 Total: \$38,400  
*Prin. Invest.:* J T CLARKE  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8993 UNIVERSITY OF MICHIGAN - ANN ARBOR 5913**  
 DYNAMICS IN THE EROS ENVIRONMENT  
 01/24/2000 - 01/31/2001 FY00: \$66,124 Total: \$66,124  
*Prin. Invest.:* D J SCHEERES  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8996 UNIVERSITY OF MICHIGAN - ANN ARBOR 5914**  
 H<sub>2</sub> AS THE PRIMARY GAS COMPONENT AT LARGE GALACTIC RADIUS -  
 FUSE  
 01/24/2000 - 01/31/2001 FY00: \$30,300 Total: \$30,300  
*Prin. Invest.:* J N BREGMAN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9017 UNIVERSITY OF MICHIGAN - ANN ARBOR 5915**  
 DYNAMICS OF THE ASTEROID ENVIRONMENT  
 02/02/2000 - 01/31/2001 FY00: \$21,000 Total: \$21,000  
*Prin. Invest.:* D J SCHEERES  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9021 UNIVERSITY OF MICHIGAN - ANN ARBOR 5916**  
 DO ELLIPTICAL GALAXY COOLING FLOWS ACTUALLY COOL? - FUSE  
 02/03/2000 - 02/14/2001 FY00: \$31,000 Total: \$31,000  
*Prin. Invest.:* J N BREGMAN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9162 UNIVERSITY OF MICHIGAN - ANN ARBOR 5917**  
 RXTE OBSERVATIONS OF SELECTED BLAZARS - ADP - 99  
 03/14/2000 - 03/14/2001 FY00: \$17,425 Total: \$17,425  
*Prin. Invest.:* M ALLER  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

## NASA'S UNIVERSITY PROGRAM

MICHIGAN

**NAG 5 9355 UNIVERSITY OF MICHIGAN - ANN ARBOR 5918**  
 GEOMAGNETIC STORM STUDIES AT LOW LATITUDES  
 04/04/2000 - 04/14/2001 FY00: \$36,200 Total: \$36,200  
 Prin. Invest.: A BURNS  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 9406 UNIVERSITY OF MICHIGAN - ANN ARBOR 5919**  
 HIGH PERFORMANCE PARALLEL METHODS FOR SPACE WEATHER SIMULATION  
 04/10/2000 - 04/29/2001 FY00: \$159,900 Total: \$159,900  
 Prin. Invest.: T GOMBOSI  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9464 UNIVERSITY OF MICHIGAN - ANN ARBOR 5920**  
 A MASSIVELY PARALLEL PARTICLE CODE FOR RARIFIED IONIZED & NEUTRAL GAS FLOWS IN EARTH & PLANETARY  
 04/18/2000 - 04/14/2003 FY00: \$117,000 Total: \$117,000  
 Prin. Invest.: M COMBI  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9536 UNIVERSITY OF MICHIGAN - ANN ARBOR 5921**  
 NEW GRANT EXTENDED SOLAR MAX: INVESTIGATION OF THE SOLAR-WIND MAGNETOSPHERE-IONOSPHERE COUPLING  
 05/04/2000 - 05/14/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: C CLAUER  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9762 UNIVERSITY OF MICHIGAN - ANN ARBOR 5922**  
 DESIGN STUDY OF A SYNTHETIC APERTURE PRECIPITATION RADIOMETER  
 08/03/2000 - 07/31/2001 FY00: \$153,283 Total: \$153,283  
 Prin. Invest.: C RUF  
 Tech. Officer: GSFC/C M PRINCIPE  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 9980 UNIVERSITY OF MICHIGAN - ANN ARBOR 5923**  
 METAL ENRICHMENT MECHANISMS IN ABELL 2199 & ABELL 3571  
 09/13/2000 - 09/14/2001 FY00: \$16,100 Total: \$16,100  
 Prin. Invest.: J N BREGMAN  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9981 UNIVERSITY OF MICHIGAN - ANN ARBOR 5924**  
 THE NATURE OF THE X-RAY EMISSION IN SA BULGES  
 09/13/2000 - 09/14/2001 FY00: \$16,000 Total: \$16,000  
 Prin. Invest.: J N BREGMAN  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1250 UNIVERSITY OF MICHIGAN - ANN ARBOR 5925**  
 STUDY OF CONFINEMENT AND PROPULSION CHARACTERISTICS OF GASDYNAMIC MIRROR FUSION ROCKET  
 12/06/1996 - 09/09/1999 FY00: \$0 Total: \$207,276  
 Prin. Invest.: T KAMMASH, W GETTY  
 Tech. Officer: MSFC/W J EMRICH  
 CASE Category: 13 - PHYSICS

**NAG 8 1612 UNIVERSITY OF MICHIGAN - ANN ARBOR 5926**  
 PROSEDS, PHASE C  
 05/21/1999 - 05/20/2000 FY00: \$0 Total: \$313,636  
 Prin. Invest.: B E GILCHRIST  
 Tech. Officer: MSFC/L CURTIS  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 8 1725 UNIVERSITY OF MICHIGAN - ANN ARBOR 5927**  
 FIELD-REVERSED END PLUGGING FOR THE GASDYNAMIC MIRROR MACHINE  
 07/26/2000 - 06/30/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: T KAMMASH, NONE  
 Tech. Officer: MSFC/W F EMRICH  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 1154 UNIVERSITY OF MICHIGAN - ANN ARBOR 5928**  
 IMPACT OF MICROGRAVITY ON DRUG AND NUTRIENT ABSORPTION  
 02/03/2000 - 01/31/2003 FY00: \$160,520 Total: \$160,520  
 Prin. Invest.: G L AMIDON  
 Tech. Officer: JSC/C LLOYD  
 CASE Category: 61 - PSYCHOLOGY BIOLOGY

**NAG 9 1167 UNIVERSITY OF MICHIGAN - ANN ARBOR 5929**  
 DEVELOP ADVANCED MILLIMETERWAVE INTERFEROMETER FOR PLASMA DIAGNOSTICS  
 09/22/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: B E GILCHRIST  
 Tech. Officer: JSC/F R CHANG-DIAZ  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 9 1251 UNIVERSITY OF MICHIGAN - ANN ARBOR 5930**  
 OPTICAL SEARCHES FOR GEOSYNCHRONOUS ORBITAL DEBRIS  
 08/01/2000 - 07/31/2002 FY00: \$106,787 Total: \$106,787  
 Prin. Invest.: P O SEITZER  
 Tech. Officer: JSC/E G STANSBERRY  
 CASE Category: 11 - ASTRONOMY

**NAG13 99024 UNIVERSITY OF MICHIGAN - ANN ARBOR 5931**  
 FOREST STRUCTURE FROM MULTI-SPECTRAL FUSION SAME  
 08/25/1999 - 08/19/2001 FY00: \$114,485 Total: \$202,010  
 Prin. Invest.: M DOBSON  
 Tech. Officer: SSC/R MCKELLIP  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 30119 UNIVERSITY OF MICHIGAN - ANN ARBOR 5932**  
 SCIENTIFIC INTERPRETATION OF GPMS DATA  
 06/15/1987 - 04/30/1999 FY00: \$0 Total: \$344,712  
 Prin. Invest.: S K ATREYA  
 Tech. Officer: GSFC/J RICHARDS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 30955 UNIVERSITY OF MICHIGAN - ANN ARBOR 5933**  
 ELECTRONICS PACKAGE FOR THE HUYGENS PROBE; GAS CHROMATOGRAPH MASS SPECTROMETER  
 04/08/1991 - 07/31/1999 FY00: \$0 Total: \$3,635,845  
 Prin. Invest.: G CARIGNAN  
 Tech. Officer: GSFC/R L FROST  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 32361 UNIVERSITY OF MICHIGAN - ANN ARBOR 5934**  
 CASSINI/HUYGENS GAS CHROMATOGRAPH MASS SPECTROMETER (GC-MS) INVESTIGATION  
 05/05/1994 - 11/14/1998 FY00: \$0 Total: \$150,413  
 Prin. Invest.: S ATREYA  
 Tech. Officer: GSFC/J RICHARDS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 32989 UNIVERSITY OF MICHIGAN - ANN ARBOR 5935**  
 PROVIDE ENGINEERING SUPPORT IN THE DEFINITION DESIGN AND TEST OF THE PLANET-B NMS  
 01/25/1996 - 09/30/2000 FY00: \$0 Total: \$1,352,255  
 Prin. Invest.: G CARIGNAN  
 Tech. Officer: GSFC/S WAY  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 99131 UNIVERSITY OF MICHIGAN - ANN ARBOR 5936**  
 ANALOG ELECTRONICS FOR CHEMICAL ANALYSIS OF RELEASED GAS EXPERIMENT(CHARGE).  
 03/29/1999 - 06/30/1999 FY00: \$23,165 Total: \$101,165  
 Prin. Invest.: P MAHAFFY  
 Tech. Officer: GSFC/J LOHR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 5 99174 UNIVERSITY OF MICHIGAN - ANN ARBOR 5937**  
 PROVIDE SUPPORT, DESIGN, DEVELOPMENT OF THE NGIMS EXPERIMENT FOR THE COMET NUCLEUS TOUR (CONTOUR)  
 04/02/1999 - 09/30/2001 FY00: \$1,495,924 Total: \$1,595,924  
 Prin. Invest.: G ARIGNAN, NONE  
 Tech. Officer: GSFC/J RICHARDS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 8 37108 UNIVERSITY OF MICHIGAN - ANN ARBOR 5938**  
 STUDY ENTITLED "RESEARCH ON ORBITAL PLASMA-ELECTRODYNAMICS (ROPE)."  
 04/14/1987 - 12/31/1999 FY00: -\$39,138 Total: \$61,663  
 Prin. Invest.: B GILCHRIST  
 Tech. Officer: MSFC/M W CASTLEMAN, MSFC/R HOLDER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 8 39381 UNIVERSITY OF MICHIGAN - ANN ARBOR 5939**  
 SHUTTLE ELECTRODYNAMIC TETHER SYSTEM  
 06/26/1992 - 08/30/1998 FY00: -\$37,551 Total: \$5,766,039  
 Prin. Invest.: B GILCHRIST, B E GILCHRIST  
 Tech. Officer: MSFC/M CASTLEMAN  
 CASE Category: 13 - PHYSICS

**NAS 8 99127 UNIVERSITY OF MICHIGAN - ANN ARBOR 5940**  
 R/S ICARUS SATELLITE FOR PROSEDS  
 06/23/1999 - 12/31/2001 FY00: \$30,000 Total: \$261,816  
 Prin. Invest.: G E GILCHRIST  
 Tech. Officer: MSFC/K J WELZYN  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAS 8 99128 UNIVERSITY OF MICHIGAN - ANN ARBOR 5941**  
 RESEARCH ENTITLED PROCEEDS UMPS PHASE D & E  
 07/30/1999 - 11/29/2001 FY00: \$5 Total: \$804,855  
 Prin. Invest.: B GILCHRIST  
 Tech. Officer: MSFC/J L BALATICE, MSFC/L JOHNSON  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NCC 2 856 UNIVERSITY OF MICHIGAN - ANN ARBOR 5942**  
 EFFECTS OF MICROGRAVITY ON DEVELOPMENT OF THIGH MUSCLES  
 05/25/1994 - 12/31/1999 FY00: \$0 Total: \$384,998  
 Prin. Invest.: K I CLARK, K F BARALD  
 Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/C M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5224 UNIVERSITY OF MICHIGAN - ANN ARBOR 5943**  
 MICROWAVE TECHNIQUES FOR REMOTE DETECTION OF TPS FAILURE  
 07/08/1997 - 06/30/1999 FY00: \$0 Total: \$40,000  
 Prin. Invest.: M C DOBSON  
 Tech. Officer: ARC/J S SALUTE  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 474 UNIVERSITY OF MICHIGAN - ANN ARBOR 5944**  
 INVESTIGATION OF DROOP FORMATION BY VORTEX RING IN MICROGRAVITY  
 05/20/1996 - 12/31/2000 FY00: \$33,000 Total: \$299,337  
 Prin. Invest.: L P BERNAL  
 Tech. Officer: GRC/J B MCGUILLEN  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 482 UNIVERSITY OF MICHIGAN - ANN ARBOR 5945**  
 RADIANT EXTINCTION OF GASOUS DIFFUSION FLAMES  
 06/15/1996 - 12/14/2000 FY00: \$92,000 Total: \$359,000  
 Prin. Invest.: A ATREYA  
 Tech. Officer: GRC/K SACKSTEADER  
 CASE Category: 13 - PHYSICS

**NCC 3 656 UNIVERSITY OF MICHIGAN - ANN ARBOR 5946**  
 FLAME VORTEX INTERACTIONS IN MICROGRAVITY TO ASSESS THE THEORY OF FLAME STRETCH  
 01/12/1999 - 12/03/2002 FY00: \$119,000 Total: \$207,500  
 Prin. Invest.: J F DRISCOLL  
 Tech. Officer: GRC/J E BROOKER  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 661 UNIVERSITY OF MICHIGAN - ANN ARBOR 5947**  
 FLOW/SOOT-FORMATION IN NONBOUYANT LAMINAR DIFFUSION FLAMES  
 01/21/1999 - 12/29/2002 FY00: \$94,905 Total: \$162,395  
 Prin. Invest.: G M FAETH, NONE  
 Tech. Officer: GRC/K SACKSTEADER  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 663 UNIVERSITY OF MICHIGAN - ANN ARBOR 5948**  
 TURBULENT FLAME PROCESSES VIA VORTEX-RING DIFFUSION FLAME INTERACTION  
 01/15/1999 - 12/30/2002 FY00: \$76,693 Total: \$152,319  
 Prin. Invest.: W DAHM  
 Tech. Officer: GRC/K R SACKSTEADER  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 723 UNIVERSITY OF MICHIGAN - ANN ARBOR 5949**  
 GAS SEPARATION & PRESSURIZATION FOR EXTRATERRESTRIAL EXPLO-  
 RATION  
 07/07/1999 - 12/31/2001 FY00: \$20,000 Total: \$40,000  
 Prin. Invest.: M KAVIANY  
 Tech. Officer: GRC/E S NELSON  
 CASE Category: 49 - ENGINEERING, OTHER

## NASA'S UNIVERSITY PROGRAM

MICHIGAN

**NCC 3 790 UNIVERSITY OF MICHIGAN - ANN ARBOR 5950**  
 SYSTEM ON A CHIP: ACTIVE COMPONENTS OF THE RF FRONT END  
 04/04/2000 - 02/28/2001 FY00: \$99,796 Total: \$99,796  
 Prin. Invest.: L P KATEHI  
 Tech. Officer: GRC/G E PONCHAK  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 5 146 UNIVERSITY OF MICHIGAN - ANN ARBOR 5951**  
 RESEARCH FOR GRAND CHALLENGE APPLICATIONS  
 08/02/1996 - 06/30/2000 FY00: \$0 Total: \$1,400,000  
 Prin. Invest.: T GOMBOSI  
 Tech. Officer: GSFC/J R FISCHER  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NCC 5 296 UNIVERSITY OF MICHIGAN - ANN ARBOR 5952**  
 RADAR REMOTE SENSING OF LAND-COVER AND BIOMASS IN THE AMAZON  
 06/16/1998 - 12/31/2000 FY00: \$180,389 Total: \$506,891  
 Prin. Invest.: M C DOBSON  
 Tech. Officer: GSFC/D W DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 383 UNIVERSITY OF MICHIGAN - ANN ARBOR 5953**  
 COLLABORATIVE EDUCATION AND PUBLIC OUTREACH ACTIVITIES BY WINDOWS TO THE UNIVERSE PROJECT IN SUPPORT  
 02/24/1999 - 02/28/2001 FY00: -\$485 Total: \$49,515  
 Prin. Invest.: L FISK  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NCC 8 181 UNIVERSITY OF MICHIGAN - ANN ARBOR 5954**  
 GLOBAL SIMULATIONS OF CORE PLASMA DENSITIES, COMPOSITION AND TEMPERATURE. NASA NRA98-OSS-03.  
 06/07/1999 - 06/06/2002 FY00: \$33,055 Total: \$43,986  
 Prin. Invest.: M LIEMOHN  
 Tech. Officer: MSFC/D GALLAGHER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NGT 2 52215 UNIVERSITY OF MICHIGAN - ANN ARBOR 5955**  
 GROUPING RULES IN CLASSIFIER SYSTEMS TOWARDS THE EVOLUTION OF HIERARCHICAL ORGANIZATION  
 07/16/1996 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J H HOLLAND  
 Tech. Officer: ARC/P D LAIRD  
 CASE Category: 45 - ELECTRICAL ENGR

**NGT 2 52249 UNIVERSITY OF MICHIGAN - ANN ARBOR 5956**  
 AN ADAPTIVE CARTESIAN METHOD FOR SOLVING THREE-DIMENSIONAL FLOWS PAST MOVING & DEFORMING GEOMETRIES  
 08/28/1998 - 08/31/1999 FY00: -\$2,250 Total: \$19,750  
 Prin. Invest.: K G POWELL  
 Tech. Officer: ARC/M J AFTOSMIS, ARC/T PULLIAM  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NGT 2 52257 UNIVERSITY OF MICHIGAN - ANN ARBOR 5957**  
 SEARCHING EXTRASOLAR PLANETS USING DIFFERENTIAL PHOTOMETRY  
 07/23/1999 - 07/14/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: F C ADAMS  
 Tech. Officer: ARC/J J LISSAUER  
 CASE Category: 11 - ASTRONOMY

**NGT 2 52269 UNIVERSITY OF MICHIGAN - ANN ARBOR 5958**  
 SIMULTANEOUS VIBRATION & BVI NOISE REDUCTION IN ROTORCRAFT USING ACTIVELY CONTROLLED TRAILING-EDGE  
 08/11/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: P P FRIEDMAN, NONE  
 Tech. Officer: ARC/W WARMBRODT  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 3 52319 UNIVERSITY OF MICHIGAN - ANN ARBOR 5959**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 08/06/1996 - 08/14/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: S CECCIO  
 Tech. Officer: GRC/D MONTEGANI  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 3 52331 UNIVERSITY OF MICHIGAN - ANN ARBOR 5960**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/10/1997 - 07/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: A K GOSH  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 3 52339 UNIVERSITY OF MICHIGAN - ANN ARBOR 5961**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM  
 09/17/1997 - 05/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D PAULIDIS  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 3 52348 UNIVERSITY OF MICHIGAN - ANN ARBOR 5962**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/15/1999 - 05/31/2000 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: A GALLIMORE  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 3 52349 UNIVERSITY OF MICHIGAN - ANN ARBOR 5963**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM  
 06/23/1999 - 08/31/2000 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: A D GALLIMORE  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 3 52365 UNIVERSITY OF MICHIGAN - ANN ARBOR 5964**  
 GRADUATE STUDENT PROGRAM GRADUATE STUDENT PROGRAM  
 06/14/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: A ATREYA  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 43 - CHEMICAL ENGR

**NGT 4 52404 UNIVERSITY OF MICHIGAN - ANN ARBOR 5965**  
 DESCRIPTION OF CONTRACT GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/10/1997 - 08/01/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D BERNSTEIN  
 Tech. Officer: DFRC/K K GUPTA, DFRC/L S VOELKER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 4 52421 UNIVERSITY OF MICHIGAN - ANN ARBOR 5966**  
 MULTIVARIABLE NONLINEAR IDENTIFICATION MULTIVARIABLE NONLINEAR IDENTIFICATION  
 05/11/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D S BERNSTEIN  
 Tech. Officer: DFRG/K K GUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 75 UNIVERSITY OF MICHIGAN - ANN ARBOR 5967**  
 A PARALLEL ADAPTIVE MESH REFINEMENT SCHEME FOR SUP ERNOVA REMNANTS  
 06/16/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: K POWELL  
 Tech. Officer: GSFC/G SOFFEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 87 UNIVERSITY OF MICHIGAN - ANN ARBOR 5968**  
 INVESTIGATION OF THE ORIGIN AND CURRENT STATE OF JUPITER'S ATMOSPHERE USING GALILEO PROBE MASS SPEC  
 05/21/1999 - 07/31/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: S K ATREYA  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 30172 UNIVERSITY OF MICHIGAN - ANN ARBOR 5969**  
 THE USE OF REMOTE SENSING METHODS FOR STUDYING FIRE-INDUCED LAND COVER CHANGES IN BOREAL FORESTS  
 09/04/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: C OLSON, FRENCH  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30359 UNIVERSITY OF MICHIGAN - ANN ARBOR 5970**  
 COMPUTATIONAL METHODS FOR ADVANCED CLIMATE MODEL PREDICTIONS: A STUDY OF ADAPTIVE GRID TECHNIQUES  
 08/23/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J PENNER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40062 UNIVERSITY OF MICHIGAN - ANN ARBOR 5971**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 03/15/1997 - 01/31/2001 FY00: \$475,000 Total: \$1,805,000  
 Prin. Invest.: R M JOHNSON  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50024 UNIVERSITY OF MICHIGAN - ANN ARBOR 5972**  
 VARIATION DATA ASSIMILATION FOR ATMOSPHERIC SOLITA  
 07/14/1997 - 12/31/1998 FY00: \$0 Total: \$22,000  
 Prin. Invest.: J BOYD  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50154 UNIVERSITY OF MICHIGAN - ANN ARBOR 5973**  
 THE ABUNDANCE AND DISTRIBUTION OF SO<sub>2</sub> IN IO'S ATMOSPHERE  
 09/11/1997 - 09/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: G BALLESTER  
 Tech. Officer: HQ/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50199 UNIVERSITY OF MICHIGAN - ANN ARBOR 5974**  
 MARKET-BASED DISTRIBUTED TASK ALLOCATION IN AUTONOMOUS SPACECRAFT  
 06/24/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: M WELLMAN  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 50255 UNIVERSITY OF MICHIGAN - ANN ARBOR 5975**  
 A HYBRID KINETIC FLUID MODEL FOR THE ATMOSPHERE OF PLUTO STUDENT: AYLISHA REINARD  
 06/21/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: L FISK  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 90052 UNIVERSITY OF MICHIGAN - ANN ARBOR 5976**  
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)  
 03/05/1997 - 12/14/1999 FY00: -\$67 Total: \$47,933  
 Prin. Invest.: S GREGERMAN  
 Tech. Officer: GSFC/R LAWRENCE  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 6 52064 UNIVERSITY OF MICHIGAN - ANN ARBOR 5977**  
 IDENTIFICATION OF LONG TERM CHANGE IN SOCIETY AND SETTLEMENT OF THE KHABUR DRAINAGE  
 07/28/1998 - 08/13/2001 FY00: \$22,000 Total: \$64,000  
 Prin. Invest.: H T WRIGHT  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

**NGT 6 52088 UNIVERSITY OF MICHIGAN - ANN ARBOR 5978**  
 NUCLEAR THERMAL PROPULSION FOR SPACE EXPLORATION  
 05/18/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: T KAMMASH  
 Tech. Officer: MSFC/S NASH-STEVENSON  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 6 52089 UNIVERSITY OF MICHIGAN - ANN ARBOR 5979**  
 DEVELOPMENT OF FIELD EMITTER ARRAY OF ELECTRODYNAMIC TETHER  
 05/04/2000 - 07/01/2003 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: B GILCHRIST  
 Tech. Officer: MSFC/S NASH-STEVENSON  
 CASE Category: 45 - ELECTRICAL ENGR

**NGT 9 3 UNIVERSITY OF MICHIGAN - ANN ARBOR 5980**  
 EFFECTS OF AGE/VESTIBULAR REHABILITATION ON POSTURAL CONTROL  
 05/31/1995 - 12/31/1998 FY00: -\$309 Total: \$85,691  
 Prin. Invest.: A D KUO  
 Tech. Officer: JSC/D G SICKOREZ  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT10 52013 UNIVERSITY OF MICHIGAN - ANN ARBOR 5981**  
 GRADUATE STUDENT RESEARCH GRANT  
 09/01/1997 - 07/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: A PRAKASH  
 Tech. Officer: KSC/G BURKINGHAM  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1279 WAYNE STATE UNIVERSITY 5982**  
 DEVELOPMENT OF STRATEGIES & TOOLS FOR ANALYSIS & CONTROL OF  
 LARGE AIR TRAFFIC MANAGEMENT SYSTEMS  
 01/05/1999 - 12/31/2000 FY00: \$30,000 Total: \$60,000  
 Prin. Invest.: F LIN  
 Tech. Officer: ARC/G MEYER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 1729 WAYNE STATE UNIVERSITY 5983**  
 SOOT AD RADIATION-MEASUREMENT IN MICROGRAVITY TURBULENT JET  
 DIFFUSION FLAMES  
 04/01/1995 - 09/30/1999 FY00: \$0 Total: \$234,000  
 Prin. Invest.: J KU  
 Tech. Officer: GRC/P S GREENBERG  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1800 WAYNE STATE UNIVERSITY 5984**  
 EXIMER LASER BASED COMBUSTION DIAGNOSTICS  
 01/22/1996 - 07/21/1999 FY00: \$0 Total: \$225,000  
 Prin. Invest.: E W ROTHE, G P RECK  
 Tech. Officer: GRC/R C ANDERSON  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2180 WAYNE STATE UNIVERSITY 5985**  
 CHARACTERIZATION OF MULTI-JUNCTION SOLAR CELLS CHARACTER-  
 IZATION OF MULTI-JUNCTION SOLAR CELLS  
 07/18/1998 - 12/09/2000 FY00: \$75,000 Total: \$150,000  
 Prin. Invest.: P WOODYARD  
 Tech. Officer: GRC/D BRINKER  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2313 WAYNE STATE UNIVERSITY 5986**  
 A DESIGN AND ANALYSIS TOOL FOR PULSE DETONATION ENGINES  
 12/29/1999 - 12/31/2000 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: S YU  
 Tech. Officer: GRC/P C JORGENSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 9 1183 WAYNE STATE UNIVERSITY 5987**  
 DEVELOPMENT OF HUMAN FACTORS ANALYSIS OF ADVANCED 3D VISU-  
 ALIZATION FOR TELEPRESENCE  
 01/15/2000 - 01/14/2003 FY00: \$127,550 Total: \$127,550  
 Prin. Invest.: L ZAMORANO  
 Tech. Officer: JSC/B WOOLFORD  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1189 WAYNE STATE UNIVERSITY 5988**  
 FROM BIOLOGICAL INFORMATION PROCESSING TO ADAPTABLE ROBOTRY:  
 PRINCIPLES, MODELS & BIOMIMETIC DESIGN  
 07/14/2000 - 07/14/2001 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: M CONRAD  
 Tech. Officer: ARC/S P COLOMBANO, ARC/M M AVERNER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 3 580 WAYNE STATE UNIVERSITY 5989**  
 APPLICATION OF THE METHOD OF SPACE-TIME CONSERVATION ELEMENT  
 AND SOLUTION ELEMENT TO THE CALCULATION  
 01/08/1998 - 11/05/2000 FY00: \$89,878 Total: \$257,819  
 Prin. Invest.: S T YU, M C LAI  
 Tech. Officer: GRC/P C JORGENSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1979 WESTERN MICHIGAN UNIVERSITY 5990**  
 NEW RESEARCH GRANT  
 12/10/1997 - 11/30/2000 FY00: \$50,000 Total: \$149,862  
 Prin. Invest.: W W LIU  
 Tech. Officer: LARC/C L RUMSEY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG10 279 WESTERN MICHIGAN UNIVERSITY 5991**  
 CLOSE CALL DATA SOURCES REVIEW AND ANALYSIS CLOSE CALL DATA  
 SOURCES REVIEW AND ANALYSIS  
 04/07/2000 - 09/29/2000 FY00: \$88,872 Total: \$88,872  
 Prin. Invest.: W J HOMAN  
 Tech. Officer: KSC/D S KEENAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## MINNESOTA

**NAG 5 8626 CONCORDIA COLLEGE IN MOORHEAD 5992**  
 MARS SOLAR BALLOON GAS CHROMATOGRAPH MASS SPECTROMETER  
 06/24/1999 - 06/30/2001 FY00: \$0 Total: \$5,000  
 Prin. Invest.: H L MANNING  
 Tech. Officer: GSFC/P R MAHAFFY  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8142 MANKATO STATE UNIVERSITY 5993**  
 AN ARTIFICIAL INTELLIGENCE CLASSIFICATION TOOL AND ITS APPLICA-  
 TION TO GAMMA-RAY BURSTS  
 02/03/1999 - 01/31/2001 FY00: \$72,400 Total: \$147,179  
 Prin. Invest.: J HAKKILA  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7366 MOORHEAD STATE UNIVERSITY 5994**  
 ELECTROCHEMICAL STUDY OF SILICATE MELT STRUCTURE AND COMPO-  
 NENT ACTIVITIES  
 05/15/1998 - 05/31/2001 FY00: \$0 Total: \$67,800  
 Prin. Invest.: R O COLSON  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 1 1936 UNIV OF MINNESOTA 5995**  
 INVESTIGATION OF MESOSCALE VARIABILITY IN CONVECTIVE BOUNDARY  
 LAYER DEVELOPMENT USING  
 05/28/1997 - 05/31/2000 FY00: \$0 Total: \$79,516  
 Prin. Invest.: K J DAVIS  
 Tech. Officer: LARC/S ISMAIL, LARC/W T STEVENS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2242 UNIV OF MINNESOTA 5996**  
 STRUCTURING FORMAL ROOMS SPECIFICATIONS FOR REUSE AND  
 PRODUCT FAMILIES -- NRA 98-LARC-8  
 09/28/1999 - 06/30/2001 FY00: \$41,369 Total: \$62,054  
 Prin. Invest.: M E HEMDAHL  
 Tech. Officer: LARC/R W BUTLER  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1308** **UNIV OF MINNESOTA** **5997**  
 A COLLABORATIVE RESEARCH & DEVELOPMENT PROJECT FOR THE  
 GLOBAL FILE SYSTEM  
 03/19/1999 - 01/31/2000 FY00: \$0 Total: \$356,667  
*Prin. Invest.:* M T O'KAAFE  
*Tech. Officer:* ARC/J R LEKASHMAN, MSFC/J PARKS  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 2 1428** **UNIV OF MINNESOTA** **5998**  
 REAL-TIME MOTION PATH PLANNING FOR AUTONOMOUS ROTOCRAFT  
 08/04/2000 - 08/31/2001 FY00: \$85,373 Total: \$85,373  
*Prin. Invest.:* Y J ZHAO  
*Tech. Officer:* ARC/M S WHALLEY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 1975** **UNIV OF MINNESOTA** **5999**  
 ROBUST NONLINEAR FEEDBACK CONTROL OF AIRCRAFT PROPELLSION  
 SYSTEMS  
 10/22/1996 - 10/31/2000 FY00: \$21,536 Total: \$226,384  
*Prin. Invest.:* W L GARRARD, G T BALAS  
*Tech. Officer:* GRC/S GARG  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2187** **UNIV OF MINNESOTA** **6000**  
 DEVELOPMENT OF A CALIBRATION SYSTEM FOR EVALUATING  
 INSTRUMENTS FOR MEASURING AEROSOLS AND PARTICULATES  
 08/06/1998 - 01/12/2001 FY00: \$24,000 Total: \$174,000  
*Prin. Invest.:* D H PUI  
*Tech. Officer:* GRC/T M SANDERS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 3 2275** **UNIV OF MINNESOTA** **6001**  
 FEASIBILITY STUDY OF A MICROSCALE PARTICULATE CLASSIFIER (MIPAC)  
 07/01/1999 - 10/20/1999 FY00: \$0 Total: \$47,500  
*Prin. Invest.:* D H PUI  
*Tech. Officer:* GRC/P S GREENBERG  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2435** **UNIV OF MINNESOTA** **6002**  
 FEASIBILITY STUDY OF A MICROSCALE PARTICULATE CLASSIFIER (MIPAC)  
 05/31/2000 - 12/31/2000 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* D H PUI  
*Tech. Officer:* GRC/P S GREENBERG  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2468** **UNIV OF MINNESOTA** **6003**  
 DEVELOPMENT OF A LOW-COST, SOFTWARE RECONFIGURABLE LABORATORY  
 FOR FIRST COURSE ON ELECTRIC DRIVES  
 06/28/2000 - 08/31/2003 FY00: \$10,000 Total: \$10,000  
*Prin. Invest.:* P MOHAN  
*Tech. Officer:* GRC/B H KENNY  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 4 159** **UNIV OF MINNESOTA** **6004**  
 APPLICATION OF GAIN SCHEDULING TO THE FA-18 SRA  
 01/14/1999 - 01/14/2000 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* G J BALAS  
*Tech. Officer:* DFRC/R LIND  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 4 205** **UNIV OF MINNESOTA** **6005**  
 APPLICATION OF GAIN-SCHEDULED MULTIVARIABLE CONTROL TECHNIQUES  
 TO THE FA-18 SYSTEMS RESEARCH AIRCRAFT  
 04/06/2000 - 03/30/2001 FY00: \$45,000 Total: \$45,000  
*Prin. Invest.:* G J BALAS  
*Tech. Officer:* DFRC/M STEPHENSON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 2698** **UNIV OF MINNESOTA** **6006**  
 ENHANCED ACCESS FOR FOREST MANAGEMENT PLANNING  
 08/25/1994 - 08/31/1999 FY00: \$0 Total: \$646,982  
*Prin. Invest.:* T E BURK  
*Tech. Officer:* GSFC/F HASLER  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3395** **UNIV OF MINNESOTA** **6007**  
 MINNESOTA BLOCK GRANT FOR ISO OBSERVATIONS  
 09/09/1996 - 08/14/1999 FY00: \$0 Total: \$141,200  
*Prin. Invest.:* R GEHRZ  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3735** **UNIV OF MINNESOTA** **6008**  
 STUDY FOR AN AURORAL MULTI-PROBE SATELLITE MISSION  
 03/03/1997 - 02/28/2001 FY00: \$0 Total: \$200,000  
*Prin. Invest.:* D A CATTELL  
*Tech. Officer:* GSFC/R HOWARD  
*CASE Category:* 13 - PHYSICS

**NAG 5 3980** **UNIV OF MINNESOTA** **6009**  
 KINETICS & MECHANISMS OF ATMOSPHERIC PHOTOOXIDATION OF  
 HALOFLUOROCARBONS & HYDROFLUOROCARBONS  
 03/05/1997 - 01/31/2001 FY00: \$0 Total: \$302,512  
*Prin. Invest.:* R W CARR  
*Tech. Officer:* GSFC/M J KURYLO  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3998** **UNIV OF MINNESOTA** **6010**  
 WEB EXPLORATION TOOLS FOR A FAST FEDERATED OPTICAL  
 03/06/1997 - 02/28/2000 FY00: \$0 Total: \$225,911  
*Prin. Invest.:* P M HUMPHREYS  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 4468** **UNIV OF MINNESOTA** **6011**  
 A THREE-DIMENSIONAL, TIME-DEPENDENT MODEL OF THE IONOSPHERE  
 WITH THE IONOSPHERE  
 05/21/1997 - 04/30/2000 FY00: \$0 Total: \$223,663  
*Prin. Invest.:* D L LYSACK  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4785** **UNIV OF MINNESOTA** **6012**  
 IR IMAGING, SPECTROSCOPY & PHOTOMETRIC STUDIES OF  
 06/11/1997 - 06/30/1999 FY00: \$0 Total: \$27,500  
*Prin. Invest.:* D D GEHRZ  
*Tech. Officer:* GSFC/J BERGSTRAHL  
*CASE Category:* 11 - ASTRONOMY



**NAG 5 5113** **UNIV OF MINNESOTA** **6013**  
 THE PROPAGATION OF UH COSMIT RAY NUCLEI FUNDING FOR FIRST YEAR  
 OF GRANT  
 04/09/1997 - 03/31/2000 FY00: \$0 Total: \$37,280  
*Prin. Invest.:* C J WADDINGTON  
*Tech. Officer:* GSFC/H C NEDDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 5172** **UNIV OF MINNESOTA** **6014**  
 A VERY HIGH TIME RESOLUTION ROCKET INVESTIGATION OF  
 IONOSPHERIC PLASMA PHYSICS ASSOCIATED WITH ATMO  
 03/30/1998 - 03/31/2001 FY00: \$139,100 Total: \$557,127  
*Prin. Invest.:* J R WYGANT  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5182** **UNIV OF MINNESOTA** **6015**  
 TIME DEPENDENT SIMULATION OF NONLINEAR COSMIC-RAY ACCELE-  
 RATION IN SHOCKS: A POWERFUL NEW APPROACH  
 03/26/1998 - 02/28/2001 FY00: \$41,400 Total: \$132,290  
*Prin. Invest.:* T W JONES  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5214** **UNIV OF MINNESOTA** **6016**  
 PHASE A GRANT STUDY FOR IMEX PROJECT P I - PROF J WYGANT  
 10/08/1998 - 10/31/2003 FY00: \$150,000 Total: \$409,500  
*Prin. Invest.:* J WYGANT  
*Tech. Officer:* GSFC/D PIERCE  
*CASE Category:* 13 - PHYSICS

**NAG 5 6191** **UNIV OF MINNESOTA** **6017**  
 TITLE: MORPHOLOGICAL ANALYSIS OF BRAIDED RIVERS U  
 08/13/1997 - 05/31/2001 FY00: \$0 Total: \$84,254  
*Prin. Invest.:* E FOUFOULA-GEORGI  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6609** **UNIV OF MINNESOTA** **6018**  
 ENHANCING REMOTE SENSING RESEARCH AND EDUCATION AT THE  
 UNIVERSITY OF MINNESOTA  
 12/16/1997 - 11/30/1999 FY00: \$0 Total: \$199,604  
*Prin. Invest.:* M BAUER  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6797** **UNIV OF MINNESOTA** **6019**  
 RHEOLOGY OF DIABASE: IMPLICATIONS FOR TECTONICS O N VENUS AND  
 MARS  
 02/19/1998 - 03/31/2001 FY00: \$121,975 Total: \$263,596  
*Prin. Invest.:* D L KOHLSTEDT  
*Tech. Officer:* GSFC/P ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7094** **UNIV OF MINNESOTA** **6020**  
 RARE GAS AND NITROGEN STUDIES ON LUNAR, METEORITIC, AND SELEC-  
 TED TERRESTRIAL MATERIALS  
 05/20/1998 - 03/14/2001 FY00: \$171,000 Total: \$472,000  
*Prin. Invest.:* R O PEPIN  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7202** **UNIV OF MINNESOTA** **6021**  
 CONTINUING DATA ANALYSIS OF THE WAVES EXPERIMENT O N THE WIND  
 SPACECRAFT  
 04/22/1998 - 02/28/2001 FY00: \$145,000 Total: \$738,516  
*Prin. Invest.:* P KELLOG  
*Tech. Officer:* GSFC/K OGILVIE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7482** **UNIV OF MINNESOTA** **6022**  
 SOLAR WIND COUPLING TO THE MAGNETOSPHERE: ANALYSIS OF MULTI-  
 SPACECRAFT OBSERVATIONS IN SOLAR WIND  
 11/12/1998 - 12/31/2000 FY00: \$88,101 Total: \$172,620  
*Prin. Invest.:* N LIN  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7599** **UNIV OF MINNESOTA** **6023**  
 REGIONAL HYDROLOGIC SIMULATION MODEL TO STUDY AQUIFER-  
 ATMOSPHERE INTER-ACTIONS ON INTERANNUAL-DECA  
 07/21/1998 - 06/30/2001 FY00: \$0 Total: \$250,000  
*Prin. Invest.:* M PERSON  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7715** **UNIV OF MINNESOTA** **6024**  
 SPATIO-TEMPORAL ORGANIZATION AND SPACE-TIME DOWNSCALING OF  
 TROPICAL RAINFALL  
 10/27/1998 - 10/31/2000 FY00: \$78,586 Total: \$154,433  
*Prin. Invest.:* E FOUFOULA-GEORGI  
*Tech. Officer:* GSFC/O W THIELE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7885** **UNIV OF MINNESOTA** **6025**  
 SUPPORT ANALYSIS OF DATA FROM THE UCLA MAGNETOMETER ON  
 NASAPOLAR SPACECRAFT DURING THE  
 12/01/1998 - 12/31/2000 FY00: \$32,500 Total: \$65,000  
*Prin. Invest.:* C CATELL  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7906** **UNIV OF MINNESOTA** **6026**  
 INFRARED IMAGING PHOTOMETRY AND POLARIMETRY OF COMETS  
 12/10/1998 - 09/30/2001 FY00: \$70,744 Total: \$220,944  
*Prin. Invest.:* D J JONES  
*Tech. Officer:* GSFC/T MORGAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7917** **UNIV OF MINNESOTA** **6027**  
 BIG FOOT--CHARACTERIZING LAND COVER, LAI AND NPP AT THE LAND-  
 SCALE SCALE FOR EOS/MODIS VALIDATION  
 12/09/1998 - 12/31/2000 FY00: \$75,055 Total: \$151,852  
*Prin. Invest.:* P B REICH  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8016** **UNIV OF MINNESOTA** **6028**  
 MAJOR EQUIPMENT FOR "HIGH-RESOLUTION 3-D IMAGING OF DEFORMA-  
 TION MICRO-STRUCTURES" SUBMITTED AS AN  
 01/21/1999 - 01/31/2000 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* D L KOHLSTEDT  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8073** **UNIV OF MINNESOTA** **6029**  
 GEOTAIL OBSERVATIONS OF EXB FLOWS AND ASSOCIATED LOW  
 FREQUENCY WAVES IN THE MAGNETOTAIL AND THEIR D  
 01/21/1999 - 01/31/2001 FY00: \$0 Total: \$84,000  
*Prin. Invest.:* C A CATTELL  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS

**NAG 5 8082** **UNIV OF MINNESOTA** **6030**  
 THEORETICAL STUDY OF ULF WAVES IN THE MAGNETOTAIL  
 01/22/1999 - 04/30/2001 FY00: \$89,936 Total: \$184,213  
*Prin. Invest.:* D L LYSACK  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8205** **UNIV OF MINNESOTA** **6031**  
 STUDY OF SUBSTORM ASSOCIATED ULF AND VLF WAVES IN THE MAGNE-  
 TOTAIL USING SPACECRAFT DATA  
 02/08/1999 - 02/14/2001 FY00: \$53,693 Total: \$108,693  
*Prin. Invest.:* D LIN  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8736** **UNIV OF MINNESOTA** **6032**  
 MERGING MODELS AND OBSERVATIONS OF THE ATMOSPHERIC  
 BOUNDARY LAYER'S MESOSCALE STRUCTURE DURING SGP97  
 08/18/1999 - 06/30/2000 FY00: -\$10,681 Total: \$0  
*Prin. Invest.:* K J DAVIS  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8869** **UNIV OF MINNESOTA** **6033**  
 LABORATORY STUDIES OF THE KINETICS OF ATMOSPHERIC REACTIONS  
 OF HALOGENATED ALKOXY RADICALS  
 01/10/2000 - 12/31/2000 FY00: \$109,858 Total: \$109,858  
*Prin. Invest.:* R W CARR  
*Tech. Officer:* GSFC/M KURYLO  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9146** **UNIV OF MINNESOTA** **6034**  
 PHASE-A AND BRIDGE PHASE STUDY OF STEREO/WAVES ACCOMMODA-  
 TION  
 03/09/2000 - 03/14/2001 FY00: \$131,154 Total: \$131,154  
*Prin. Invest.:* K GOETZ  
*Tech. Officer:* GSFC/M KAISER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9221** **UNIV OF MINNESOTA** **6035**  
 QUASARS AS PROBES (LTA 99)  
 03/14/2000 - 05/31/2001 FY00: \$103,059 Total: \$103,059  
*Prin. Invest.:* E SKILLMAN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9254** **UNIV OF MINNESOTA** **6036**  
 THEORETICAL STUDIES OF ALFVEN WAVE INTERACTION WITH THE  
 IONOSPHERE  
 03/13/2000 - 04/30/2001 FY00: \$72,500 Total: \$72,500  
*Prin. Invest.:* R LYSACK  
*Tech. Officer:* GSFC/M MELLOTT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9312** **UNIV OF MINNESOTA** **6037**  
 MAPPING & MODELING FOREST CHANGE IN A BOREAL LAND SCAPE  
 03/20/2000 - 04/30/2001 FY00: \$79,780 Total: \$79,780  
*Prin. Invest.:* J PASTOR  
*Tech. Officer:* GSFC/G GUTMAN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9349** **UNIV OF MINNESOTA** **6038**  
 BALLOON BORNE OBSERVATIONS OF THE POLARIZATION ANI SOTROPY  
 OF THE COSMIC MICROWAVE BACKGROUND RADIAT  
 03/28/2000 - 03/31/2003 FY00: \$129,000 Total: \$129,000  
*Prin. Invest.:* S HANANY  
*Tech. Officer:* GSFC/G STRINGFELLOW  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9407** **UNIV OF MINNESOTA** **6039**  
 ENHANCING & ARCHIVING THE APS CATALOG OF THE POSS I  
 04/10/2000 - 04/29/2001 FY00: \$117,500 Total: \$117,500  
*Prin. Invest.:* R HUMPHREYS  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1258** **UNIV OF MINNESOTA** **6040**  
 ATOMISTIC SIMULATIONS OF CADMIUM TELLURIDE  
 04/15/1996 - 04/14/2001 FY00: \$36,667 Total: \$352,000  
*Prin. Invest.:* J DERBY  
*Tech. Officer:* MSFC/P DOTY, MSFC/D NOEVER  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1349** **UNIV OF MINNESOTA** **6041**  
 SELF-ASSEMBLY OF HEPATOCYTE SPHEROIDS IN MICRO- GRAVITY  
 06/19/1997 - 11/30/2000 FY00: \$140,197 Total: \$497,933  
*Prin. Invest.:* W S HU, L HANSEN, R KEMMEL  
*Tech. Officer:* MSFC/B GUYNES, MSFC/J MAYO  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1474** **UNIV OF MINNESOTA** **6042**  
 THEORETICAL ANALYSIS OF 3D TRANSIENT CONVECTION AND SEGREGA-  
 TION  
 02/06/1998 - 01/31/2002 FY00: \$135,000 Total: \$359,500  
*Prin. Invest.:* J J DERBY, A J YECKEL  
*Tech. Officer:* MSFC/C TALLEY  
*CASE Category:* 13 - PHYSICS

**NAG 8 1519** **UNIV OF MINNESOTA** **6043**  
 SUBGRID SCALE PRECIPITATION VARIABILITY OVER THE MISSISSIPPI  
 RIVER BASIN  
 05/01/1998 - 04/30/2001 FY00: \$100,000 Total: \$317,495  
*Prin. Invest.:* E FOULOUA-GEORGIOU  
*Tech. Officer:* MSFC/J ARNOLD  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 8 1676** **UNIV OF MINNESOTA** **6044**  
 FIRST PRINCIPLES CALCULATIONS OF MOLTEN II-IV COMPOUNDS AND  
 THEIR SOLIDIFICATION BEHAVIOR  
 05/01/2000 - 11/30/2003 FY00: \$45,000 Total: \$45,000  
*Prin. Invest.:* J J DERBY, J R CHELIKOWSKY  
*Tech. Officer:* MSFC/P M DOTY  
*CASE Category:* 47 - METAL & MATERIALS ENGR

## NASA'S UNIVERSITY PROGRAM

MINNESOTA

<b>NAG 9 1007</b> <b>UNIV OF MINNESOTA</b> <b>6045</b> GENESIS DISCOVERY MISSION 05/06/1998 - 10/07/2000      FY00: \$108,431                      Total: \$225,625 Prin. Invest.: R O PEPIN Tech. Officer: JSC/E K STANSBERRY CASE Category: 19 - PHYSICAL SCIENCE, OTHER	<b>NCC 2 809</b> <b>UNIV OF MINNESOTA</b> <b>6053</b> OPTIMAL TAKEOFF PROCEDURES FOR A CATEGORY A HELICOPTERS 07/08/1993 - 02/28/2001      FY00: \$28,360                      Total: \$361,468 Prin. Invest.: Y ZHAO Tech. Officer: ARC/R T CHEN CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 9 1218</b> <b>UNIV OF MINNESOTA</b> <b>6046</b> LIQUID COOLING GARMENT FOR SPACE SUIT 03/03/2000 - 03/08/2001      FY00: \$189,652                      Total: \$189,652 Prin. Invest.: V KOSCHEYER Tech. Officer: JSC/R TREVINO CASE Category: 42 - ASTRONAUTICAL ENGR	<b>NCC 2 990</b> <b>UNIV OF MINNESOTA</b> <b>6054</b> AIRCRAFT SCHEDULING & CONFLICT RESOLUTION IN ATM 04/29/1997 - 09/30/2000      FY00: \$81,000                      Total: \$284,317 Prin. Invest.: Y ZHAO Tech. Officer: ARC/T J DAVIS, ARC/J E ROBINSON, III CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 9 1222</b> <b>UNIV OF MINNESOTA</b> <b>6047</b> WORST CASE ANALYSIS OF THE X38 V201 FLIGHT CONTROL SYSTEM 03/24/2000 - 03/24/2001      FY00: \$40,918                      Total: \$40,918 Prin. Invest.: G J BALAS Tech. Officer: JSC/S R MUNDY/M M HAMMERSCHMIDT CASE Category: 41 - AERONAUTICAL ENGR	<b>NCC 2 5268</b> <b>UNIV OF MINNESOTA</b> <b>6055</b> LOAD BALANCING ON THE INFORMATION POWER GRID 05/20/1998 - 09/30/1998      FY00: \$0                      Total: \$40,000 Prin. Invest.: V KUMAR Tech. Officer: ARC/S SAINI CASE Category: 22 - COMPUTER SCIENCE
<b>NAG13 99002</b> <b>UNIV OF MINNESOTA</b> <b>6048</b> THE UPPER MIDWEST REGIONAL EARTH SCIENCE APPLICATION CENTER 02/03/1999 - 02/02/2002      FY00: \$0                      Total: \$1,500,000 Prin. Invest.: M E BAUER Tech. Officer: SSC/C HILL CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NCC 2 5317</b> <b>UNIV OF MINNESOTA</b> <b>6056</b> SCHEDULING ALGORITHMS & APPLICATIONS DEVELOPMENT ON THE INFORMATIONPOWER GRID 04/13/1999 - 10/31/2000      FY00: \$0                      Total: \$40,000 Prin. Invest.: V KAMAR, G KARYPIS Tech. Officer: ARC/S SAINI CASE Category: 22 - COMPUTER SCIENCE
<b>NAG13 99022</b> <b>UNIV OF MINNESOTA</b> <b>6049</b> INTEGRATING SATELLITE REMOTE SENSING INTO FOREST INVENTORY AND MANAGEMENT 08/13/1999 - 11/01/2000      FY00: \$17,500                      Total: \$105,025 Prin. Invest.: M BAUER Tech. Officer: SSC/R MCKELLIP CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NCC 2 5340</b> <b>UNIV OF MINNESOTA</b> <b>6057</b> LIFE IN EXTREME ENVIRONMENTS RESEARCH 08/04/1999 - 07/31/2000      FY00: \$0                      Total: \$30,000 Prin. Invest.: W E SEYFRIED Tech. Officer: ARC/M T FLYNN, ARC/J HINES CASE Category: 33 - OCEANOGRAPHY
<b>NAS 5 32994</b> <b>UNIV OF MINNESOTA</b> <b>6050</b> SCIENTIFIC AND TECHNICAL SUPPORT FOR THE UNIFIED RADIO AND PLASMA WAVE INVESTIGATION 02/08/1996 - 12/31/2000      FY00: \$114,661                      Total: \$571,329 Prin. Invest.: K GOETZ, P J KELLOGG Tech. Officer: GSFC/R J MACDOWELL CASE Category: 19 - PHYSICAL SCIENCE, OTHER	<b>NCC 2 5393</b> <b>UNIV OF MINNESOTA</b> <b>6058</b> ADVANCED MODELS FOR HIGH ENTHALPY FLOW SIMULATIONS 08/14/2000 - 09/14/2001      FY00: \$55,750                      Total: \$55,750 Prin. Invest.: G V CANDLER Tech. Officer: ARC/J OLEJNICZAK CASE Category: 41 - AERONAUTICAL ENGR
<b>NCC 1 311</b> <b>UNIV OF MINNESOTA</b> <b>6051</b> IMPLEMENTATION OF IMPROVED NANOMETER AEROSOL SIZE ANALYZER (NANO-ASA) FOR NEAR-FIELD FLT EXPERIMENTS 07/23/1998 - 01/12/2001      FY00: \$14,600                      Total: \$95,150 Prin. Invest.: D PUI, B E ANDERSON, D B KITTELSON Tech. Officer: LARC/W L GROSE, LARC/R S ECKMAN CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NCC 3 652</b> <b>UNIV OF MINNESOTA</b> <b>6059</b> MEASUREMENTS IN A TRANSITIONAL BOUNDARY LAYER UNDER LOW- PRESSURE TURBINE AIRFOIL CONDITIONS 11/10/1998 - 12/31/2000      FY00: \$23,185                      Total: \$90,947 Prin. Invest.: T W SIMON Tech. Officer: GRC/D E ASHPIS CASE Category: 46 - MECHANICAL ENGR
<b>NCC 1 337</b> <b>UNIV OF MINNESOTA</b> <b>6052</b> APPLICATION OF LINEAR PARAMETER-VARYING TECHNIQUES TO SAFETY- CRITICAL AIRCRAFT FLIGHT SYSTEMS 07/20/1999 - 07/14/2002      FY00: \$199,592                      Total: \$299,592 Prin. Invest.: G J BALAS Tech. Officer: LARC/C M BELCASTRO, LARC/N M BELCASTRO CASE Category: 41 - AERONAUTICAL ENGR	<b>NCC 3 754</b> <b>UNIV OF MINNESOTA</b> <b>6060</b> DEVELOPMENT OF THE SPACE-TIME CE/SE METHOD FOR LARGE EDDY SIMULATIONS OF SUPERSONIC JET NOISE 12/29/1999 - 12/15/2000      FY00: \$50,000                      Total: \$50,000 Prin. Invest.: G V CANDLER Tech. Officer: GRC/P JORGENSON CASE Category: 41 - AERONAUTICAL ENGR

<p><b>NCC 3 811</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6061</b>            ULTRA-COMPACT, SOFT-SWITCHING POWER SUPPLIES WITH HIGH EFFICIENCY FOR ELECTRIC PROPULSION            07/13/2000 - 06/14/2002      FY00: \$128,342                      Total: \$128,342  <i>Prin. Invest.:</i> N MOHAN  <i>Tech. Officer:</i> GRC/R M BUTTON            CASE Category: 45 - ELECTRICAL ENGR</p>	<p><b>NGT 5 50091</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6069</b>            STUDY OF LONG RANGE QUANTUM COHERENCE IN THE BOSE- LIQUID HELIUM FOUR.            09/05/1997 - 06/30/2000      FY00: \$0                      Total: \$66,000  <i>Prin. Invest.:</i> HALLEY  <i>Tech. Officer:</i> HQ/A NURRIDIN            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NCC 5 316</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6062</b>            INSTITUTIONALIZING MTPE DATA FOR LAND &amp; ENVIRONMENTAL MANAGEMENT            04/11/1998 - 02/28/2003      FY00: \$260,000                      Total: \$528,000  <i>Prin. Invest.:</i> T BURK  <i>Tech. Officer:</i> GSFC/A TUYAHOV            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NGT 5 50104</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6070</b>            SPATIO-TEMPORAL ORGANIZATION OF REMOTELY SENSED RA DYNAMIC SCALING AND DEVELOPMENT OF FRAMEWORK FOR            09/06/1997 - 08/31/2000      FY00: \$0                      Total: \$44,000  <i>Prin. Invest.:</i> G POURFOULA  <i>Tech. Officer:</i> GSFC/G ASRAR            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NGT 5 102</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6063</b>            SPECTROSCOPIC VARIABILITY IN ETA CARINAE (STUDENT: NATHAN SMITH)            05/25/2000 - 06/30/2001      FY00: \$22,000                      Total: \$22,000  <i>Prin. Invest.:</i> K DAVIDSON  <i>Tech. Officer:</i> GSFC/G A SOFFEN            CASE Category: 11 - ASTRONOMY</p>	<p><b>NGT 5 50123</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6071</b>            THE DYNAMICAL EVOLUTION OF YOUNG SUPERNOVA REMNANT            09/10/1997 - 09/14/2000      FY00: \$0                      Total: \$66,000  <i>Prin. Invest.:</i> L RUDNICK  <i>Tech. Officer:</i> HQ/A NURRIDIN            CASE Category: 29 - MATH/COMPUTER SCI, OTHER</p>
<p><b>NGT 5 30080</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6064</b>            THE HYDROLOGIC CYCLE OF THE LOWER KANSAS RIVER BAS OF LAND-ATMOSPHERE FEEDBACKS AND POTENTIAL EFFECT            09/11/1997 - 08/31/2000      FY00: \$0                      Total: \$22,000  <i>Prin. Invest.:</i> M PERSON  <i>Tech. Officer:</i> GSFC/G ASRAR            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NGT 5 50186</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6072</b>            THREE DIMENSIONAL SIMULATION OF KELVIN-HELMHOLTZ INSTABILITY WITH MAGNETIC SHEAR            05/27/1998 - 06/30/2000      FY00: \$0                      Total: \$38,500  <i>Prin. Invest.:</i> R L LYSAK  <i>Tech. Officer:</i> HQ/A NURRIDIN            CASE Category: 13 - PHYSICS</p>
<p><b>NGT 5 30109</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6065</b>            FAST-GEOTAIL CORRELATIVE STUDIES OF MAGNETOSPHERE-IONOSPHERE COUPLING            05/11/1998 - 07/31/2001      FY00: \$0                      Total: \$44,000  <i>Prin. Invest.:</i> C CATTELL/SIGSBEE  <i>Tech. Officer:</i> GSFC/D EVANS            CASE Category: 11 - ASTRONOMY</p>	<p><b>NGT 5 50208</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6073</b>            THEORETICAL STUDIES OF DISSIPATION IN THE PROPOSED CONDENSATE EXPERIMENT IN HELIUM FOUR            07/10/1998 - 08/30/2000      FY00: \$0                      Total: \$22,000  <i>Prin. Invest.:</i> J W HALLEY  <i>Tech. Officer:</i> HQ/A NURRIDIN            CASE Category: 13 - PHYSICS</p>
<p><b>NGT 5 30111</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6066</b>            THE IMPACTS OF A SALT CEDAR (TAMARIX RAMOSISSIMA) INVASION ON COMMUNITIES, ECOSYSTEM PROCESSES            08/28/1998 - 08/31/2001      FY00: \$22,000                      Total: \$66,000  <i>Prin. Invest.:</i> S HOBBIE  <i>Tech. Officer:</i> GSFC/M Y WEI            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NGT 5 50250</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6074</b>            SOUTHERN GALACTIC PLANE SURVEY AT 21 CM STUDENT: NAOMI M. MCCLURE-G            06/08/1999 - 08/31/2001      FY00: \$22,000                      Total: \$44,000  <i>Prin. Invest.:</i> J DICKEY  <i>Tech. Officer:</i> GSFC/L SMITH            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NGT 5 30115</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6067</b>            ECOSYSTEM RESPONSE TO CLIMATIC CHANGE: A COMPARATIVE STUDY OF FOREST-LAKE ECOSYSTEMS ON DIFFERENT SITES            10/01/1997 - 02/28/2001      FY00: \$0                      Total: \$66,000  <i>Prin. Invest.:</i> M DAVIS  <i>Tech. Officer:</i> GSFC/G ASRAR            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NGT 5 50251</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6075</b>            STUDY OF SOLITARY WAVES &amp; DOUBLE LAYERS IN HIGH ALTITUDE CUSP AND PLASMA SHEET BOUNDARY REGION            06/08/1999 - 06/30/2000      FY00: \$0                      Total: \$22,000  <i>Prin. Invest.:</i> C CATTELL  <i>Tech. Officer:</i> GSFC/L SMITH            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NGT 5 40040</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6068</b>            NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM            01/24/1997 - 02/28/2001      FY00: \$481,400                      Total: \$1,417,650  <i>Prin. Invest.:</i> W L GARRARD  <i>Tech. Officer:</i> GSFC/L KEFFER            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NGT 5 50293</b>                      <b>UNIV OF MINNESOTA</b>                      <b>6076</b>            A PARTICLE SIMULATION STUDY OF SOLITARY WAVES IN THE MAGNETOSPHERE/STUDENT: JAMES CRUMLEY            06/26/2000 - 06/30/2001      FY00: \$22,000                      Total: \$22,000  <i>Prin. Invest.:</i> R LYSAK  <i>Tech. Officer:</i> GSFC/L SMITH            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>

## NASA'S UNIVERSITY PROGRAM

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**NGT 5 50312** **UNIV OF MINNESOTA** **6077**  
 THE ELECTRODYNAMICS OF THE INNER MAGNETOSPHERE DURING  
 MAJOR GEOMAGNETIC STORMS/STUDENT: DOUGLASROW  
 08/07/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J WYGANT  
 Tech. Officer: GSFC/J SHARBER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NSG 5088** **UNIV OF MINNESOTA** **6078**  
 RESEARCH OF MAGNETOSPHERIC PHYSICS PHENOMENA USING SOUND  
 ROCKETS  
 11/01/1975 - 06/30/2001 FY00: \$0 Total: \$2,615,463  
 Prin. Invest.: J R WINCKLER  
 Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS  
 CASE Category: 13 - PHYSICS

**NCC 9 67** **WINONA STATE UNIVERSITY** **6079**  
 RELIABILITY MODELING WITH CASUAL VARIABLES ATTRIBUTABLE WITHIN  
 THE LOGISTIC REGRESSION MODEL  
 02/23/1998 - 09/01/1999 FY00: \$0 Total: \$55,000  
 Prin. Invest.: R D JARVINEN  
 Tech. Officer: JSC/R P HEYDORN  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

## MISSISSIPPI

**NAG 9 1135** **ALCORN STATE UNIVERSITY** **6080**  
 INTEGRATED POWER SYS RELIABILITY CURRICULUM ENHANCEMENT AND  
 LAB DEVELOP PROGRAM  
 08/17/1999 - 08/16/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: N W MOSES  
 Tech. Officer: JSC/W C ROEH, JSC/L M ARMENDARIZ  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG13 98005** **ALCORN STATE UNIVERSITY** **6081**  
 THERMAL-HYDRAULIC MATERIAL PRE-CONSTRUCTION ANALYSIS OF THE  
 NEW SSME TEST DIFFUSER  
 03/31/1998 - 03/30/2001 FY00: \$87,500 Total: \$264,392  
 Prin. Invest.: S ACEIL  
 Tech. Officer: JSC/B ST. CYR  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG13 98010** **ALCORN STATE UNIVERSITY** **6082**  
 STRENGTHENING PRE-SERVICE AND IN-SERVICE TEACHER EDUCATION  
 IN MATHEMATICS, SCIENCE & TECHNOLOGY  
 06/12/1998 - 06/10/2001 FY00: \$195,546 Total: \$575,280  
 Prin. Invest.: D ADDIE, J RUSSELL, W HUMPHRY  
 Tech. Officer: JSC/N SULLIVAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2277** **JACKSON STATE UNIVERSITY** **6083**  
 INTELLIGENT INTERFACE TO THE NUMERICAL SIMULATORS (IINS) OF THE  
 AEROSPACE TRANSPORTATION ENGINES.  
 07/22/1999 - 07/31/2002 FY00: \$35,000 Total: \$70,032  
 Prin. Invest.: D MITRA  
 Tech. Officer: GRC/D F NOGA  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 6209** **JACKSON STATE UNIVERSITY** **6084**  
 BOUNDARY LAYER PROCESSES AFFECTING TROPICAL CYCLONES  
 08/06/1997 - 07/31/2001 FY00: \$75,000 Total: \$300,000  
 Prin. Invest.: P FITZPATRICK  
 Tech. Officer: GSFC/R ADLER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1316** **JACKSON STATE UNIVERSITY** **6085**  
 JOVE RESEARCH  
 01/22/1997 - 05/31/2000 FY00: \$0 Total: \$75,000  
 Prin. Invest.: R S REDDY  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 9 990** **JACKSON STATE UNIVERSITY** **6086**  
 JSU INTEGRATED ATECHNOLOGY PAROGRAM  
 02/26/1998 - 09/30/1999 FY00: -\$2,254 Total: \$22,746  
 Prin. Invest.: S BOLLS  
 Tech. Officer: KSC/D G SICKOREZ  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG13 49** **JACKSON STATE UNIVERSITY** **6087**  
 JSU-NASA PARTNERSHIP FOR RESEARCH AND EDUCATIONAL PROGRAMS  
 06/23/1997 - 09/30/1999 FY00: -\$2,338 Total: \$357,662  
 Prin. Invest.: P B TCHOUNWOU  
 Tech. Officer: SSC/A T JOYCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG13 98007** **JACKSON STATE UNIVERSITY** **6088**  
 PACE/MSET SAME  
 06/10/1998 - 06/09/2001 FY00: \$99,970 Total: \$299,910  
 Prin. Invest.: A K MOHAMED  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG13 99004** **JACKSON STATE UNIVERSITY** **6089**  
 MASTAP PROJECT: A MODEL FOR IMPROVING THE PRE-SERVICE  
 TRAINING OF MIDDLE SCHOOL MATH TEACHERS  
 02/23/1999 - 02/22/2002 FY00: \$199,600 Total: \$399,200  
 Prin. Invest.: H GORE  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG13 99012** **JACKSON STATE UNIVERSITY** **6090**  
 STUDIES OF OCEAN-ATMOSPHERIC INTERACTIONS AND ASSOCIATED  
 TROPICAL CYCLONES/HURRICANES OF GULF ME  
 03/17/1999 - 03/16/2002 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: R REDDY  
 Tech. Officer: JSC/R MILLER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG13 99013** **JACKSON STATE UNIVERSITY** **6091**  
 SATELLITE ANALYSIS OF GULF COAST ATMOSPHERE MOSITURE AND  
 TROPOSPHERIC AEROSOLS  
 03/24/1999 - 03/23/2002 FY00: \$99,997 Total: \$199,996  
 Prin. Invest.: P CROFT  
 Tech. Officer: JSC/J JENNER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

<p><b>NCC 2 5398 JACKSON STATE UNIVERSITY 6092</b>  COMPUTATIONAL STUDY ON EVOLUTION OF LIFE: INVESTIGATION OF  NON-CLASSICAL BASE 5-AZACYTOSINE &amp; ITS D  09/21/2000 - 09/30/2001 FY00: \$14,000 Total: \$14,000  Prin. Invest.: J LESZCZYNSKI  Tech. Officer: ARC/A POHORILLE, ARC/M FONDA  CASE Category: 12 - CHEMISTRY</p>	<p><b>NAG 1 2295 MISSISSIPPI STATE UNIVERSITY 6100</b>  SITUATION AWARENESS &amp; LEVEL OF AUTOMATION: EMPIRICAL  ASSESSMENT OF LEVELS OF AUTOMATION IN THE  05/11/2000 - 05/10/2001 FY00: \$60,000 Total: \$60,000  Prin. Invest.: D B KABER  Tech. Officer: LARC/M R ENDSLEY  CASE Category: 69 - PSYCHOLOGY, OTHER</p>
<p><b>NCC 3 437 JACKSON STATE UNIVERSITY 6093</b>  SYSTEM DEFINITION AND OBJECT ORIENTED PROGRAMMING FOR A  ROCKET ENGINE NUMERICAL SIMULATION  10/23/1995 - 05/31/2000 FY00: \$0 Total: \$284,267  Prin. Invest.: D N BHALLA  Tech. Officer: GRC/D E NOGA, GRC/K J DAVIDIAN  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 2 1232 MISSISSIPPI STATE UNIVERSITY 6101</b>  PHYSICS-BASED MANEUVERING PREDICTION OF TILT ROTOR AIRCRAFT  06/24/1998 - 11/30/2000 FY00: \$285,000 Total: \$654,388  Prin. Invest.: D L WHITFIELD, L K TAYLOR, W R BRILEY  Tech. Officer: ARC/R C STRAWN, ARC/W F FEIREISEN  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NGT 5 90067 JACKSON STATE UNIVERSITY 6094</b>  YOUNG SCIENTIST PROGRAM  04/17/1997 - 09/14/1999 FY00: \$0 Total: \$213,803  Prin. Invest.: R SULLIVAN  Tech. Officer: GSFC/B WHITE  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 3 1699 MISSISSIPPI STATE UNIVERSITY 6102</b>  COMPUTATIONAL FLUID DYNAMICS OF ROTATING MACHINERY USING  TRUBO  01/23/1995 - 01/10/2001 FY00: \$100,000 Total: \$579,999  Prin. Invest.: J M JANUS, D WHITFIELD, T MSWAFFORD  Tech. Officer: GRC/D L HUFF  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NGT13 52713 JACKSON STATE UNIVERSITY 6095</b>  GRADUATE STUDENT PROGRAM SAME  08/15/1997 - 08/15/2000 FY00: -\$3,471 Total: \$40,529  Prin. Invest.: C HARPER  Tech. Officer: SSC/A R JOYCE  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 3 1712 MISSISSIPPI STATE UNIVERSITY 6103</b>  COMPUTATIONS OF ROTOR-STATOR INTERACTIONS USING THE  NAVIER-STOKES EQUATION  02/21/1995 - 02/06/2000 FY00: \$35,000 Total: \$480,000  Prin. Invest.: D L WHITFIELD  Tech. Officer: GRC/E R MCFARLAND  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG13 99015 MISSISSIPPI GULF COAST COMMUNITY COLLEGE 6096</b>  DEVELOPMENT OF CURRICULUM SUPPORT MATERIALS - AGRICUL-  TURE, FOREST AND ENVIRONMENTAL TECHNOLOGY  05/11/1999 - 09/30/1999 FY00: -\$4 Total: \$19,996  Prin. Invest.: J BRYAN  Tech. Officer: SSC/A JOYCE  CASE Category: 59 - LIFE SCIENCE, OTHER</p>	<p><b>NAG 3 2176 MISSISSIPPI STATE UNIVERSITY 6104</b>  DEVELOPMENT OF A PARALLEL TURBOMACHINERY FLOW SOLVER  06/22/1998 - 05/20/2001 FY00: \$95,000 Total: \$190,000  Prin. Invest.: W R BRILEY  Tech. Officer: GRC/E R MCFARLAND  CASE Category: 46 - MECHANICAL ENGR</p>
<p><b>NAG 1 1990 MISSISSIPPI STATE UNIVERSITY 6097</b>  GRID GENERATION AND NUMERICAL SOLUTION OF THE NAVIER-STOKES  EQUATIONS OF UNSTRUCTURED GRIDS  01/12/1998 - 01/11/2000 FY00: \$1 Total: \$250,001  Prin. Invest.: D L WHITFIELD, D L MARCUM  Tech. Officer: LARC/J L THOMAS  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 3 2235 MISSISSIPPI STATE UNIVERSITY 6105</b>  INTEGRATED GEOMETRY/GRID/SIMULATION SOFTWARE FOR SINGLE AND  MULTI-ELEMENT AIRFOILS WITH ICE ACCRETION  02/22/1999 - 11/30/2000 FY00: \$80,000 Total: \$130,313  Prin. Invest.: B K SONI  Tech. Officer: GRC/Y K CHOO  CASE Category: 49 - ENGINEERING, OTHER</p>
<p><b>NAG 1 2003 MISSISSIPPI STATE UNIVERSITY 6098</b>  A STRIP-YIELD MODEL FOR PREDICTING THE GROWTH OF PART-  THROUGH CRACKS UNDER CYCLIC LOADING  02/04/1998 - 02/03/2000 FY00: \$0 Total: \$129,683  Prin. Invest.: S R DANIEWCZ  Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU  CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NAG 5 6519 MISSISSIPPI STATE UNIVERSITY 6106</b>  SOUTHERN REMOTE SENSING RESEARCH AND TRAINING CENTER  10/24/1997 - 09/30/1999 FY00: -\$17,801 Total: \$422,855  Prin. Invest.: D L EVANS  Tech. Officer: GSFC/M WEI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 1 2038 MISSISSIPPI STATE UNIVERSITY 6099</b>  INVESTIGATION OF ROBUST DESIGN CONCEPTS FOR COMPOSITE  ROTORCRAFT FUSELAGE STRUCTURES  03/26/1998 - 12/31/2000 FY00: \$51,526 Total: \$135,283  Prin. Invest.: M RAIS-BHANI  Tech. Officer: LARC/D J BAKER, LARC/D R AMBUR  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 8 1158 MISSISSIPPI STATE UNIVERSITY 6107</b>  FUNDING PREDICTION PROTEIN CRYSTALLIZATION  07/21/1995 - 05/31/1999 FY00: \$0 Total: \$338,000  Prin. Invest.: W W WILSON  Tech. Officer: MSFC/D C CARTER, MSFC/T Y MILLER  CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>

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<b>NAG 8 1566</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6108</b> NOVEL APPROACHES REGARDING PROTEIN SOLUBILITY 02/23/1999 - 11/30/2002      FY00: \$127,000      Total: \$243,000 <i>Prin. Invest.:</i> W W WILSON, A ASONOV <i>Tech. Officer:</i> MSFC/B V GUYNES CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)	<b>NCC 3 221</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6116</b> LOW-VELOCITY, OPPOSED-FLOW FLAME SPREAD IN A TRANS PORT-CON- TROLLED, MICROGRAVITY ENVIRONMENT 06/19/1991 - 08/12/1999      FY00: -\$2,593      Total: \$712,178 <i>Prin. Invest.:</i> R A ALTENKIRCH, S BHATTA CHARJEE <i>Tech. Officer:</i> GRC/J A SALZMAN, GRC/H D ROSS CASE Category: 19 - PHYSICAL SCIENCE, OTHER
<b>NAG 9 983</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6109</b> MONITORING 10 MICRON SIZED BUBBLE IN MODEL TISSUE 01/09/1998 - 01/11/2000      FY00: -\$772      Total: \$49,228 <i>Prin. Invest.:</i> J GILBERT <i>Tech. Officer:</i> JSC/M POWELL CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)	<b>NCC 3 667</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6117</b> REFLIGHT OF THE SOLID SURFACE COMBUSTION EXPERIMENT WITH EMPHASIS ON FLAME RADIATION NEAR EXTINGUISHMENT 02/02/1999 - 09/16/1999      FY00: \$0      Total: \$112,609 <i>Prin. Invest.:</i> R A ALTENKIRCH <i>Tech. Officer:</i> GRC/K R SACKSTEDER CASE Category: 49 - ENGINEERING, OTHER
<b>NAG13 99018</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6110</b> LEAF AREA AND VOLUME ESTIMATES IN LOBLOLLY PINE FOREST DERIVED FROM AERIAL IMAGING LIDAR 07/30/1999 - 11/01/2000      FY00: \$98,246      Total: \$182,132 <i>Prin. Invest.:</i> S ROBERTS <i>Tech. Officer:</i> SSC/R MCKELLIP CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NCC13 99001</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6118</b> ROLE OF LAND-GRANT UNIVERSITY IN APPLICATIONS OF REMOTE SENSING 02/19/1999 - 02/21/2001      FY00: \$2,500,000      Total: \$10,000,000 <i>Prin. Invest.:</i> D SHAW, N M COX <i>Tech. Officer:</i> SSC/H CARR CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAS 3 00181</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6111</b> MODIFICATION OF TURBO SOFTWARE 09/29/2000 - 10/01/2005      FY00: \$125,000      Total: \$125,000 <i>Prin. Invest.:</i> J CHEN, D L WHITEFIELD, R BRILEY <i>Tech. Officer:</i> GRC/E MCFARLAND, GRC/D VAN ZANTE CASE Category: 41 - AERONAUTICAL ENGR	<b>NGT13 52741</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6119</b> ENHANCEMENT OF CRYOGENIC FLUID FLOW SIMULATION CAPABILITIES & CONTROLLER DESIGN TEST FACILITIES 05/20/2000 - 07/31/2001      FY00: \$0      Total: \$0 <i>Prin. Invest.:</i> R FOLLET <i>Tech. Officer:</i> SSC/R TRAVIS CASE Category: 49 - ENGINEERING, OTHER
<b>NAS13 564</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6112</b> RD TASKS IN SUPPORT OF NASA AND RESIDENT AGENCIES \$2,500,000.00 03/18/1993 - 09/30/1999      FY00: -\$100,254      Total: \$11,206,839 <i>Prin. Invest.:</i> M DINGERSON, J BIVENS <i>Tech. Officer:</i> SSC/D POWE CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 5 9197</b> <b>MISSISSIPPI VALLEY STATE UNIV.</b> <b>6120</b> MISSISSIPPI VALLEY STATE UNIVERSITY PACE PROGRAM 03/09/2000 - 02/28/2001      FY00: \$99,738      Total: \$99,738 <i>Prin. Invest.:</i> C BLAND <i>Tech. Officer:</i> GSFC/M STOUTSENBERGER CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAS13 98033</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6113</b> RESEARCH & DEVELOPMENT NASA AND RESIDENT AGENCIES 03/23/1998 - 03/22/2003      FY00: \$4,113,431      Total: \$10,022,587 <i>Prin. Invest.:</i> L RITCHIE, BULLINGTON, D WIESENBERG <i>Tech. Officer:</i> SSC/D POWE CASE Category: 33 - OCEANOGRAPHY	<b>NAG 5 9535</b> <b>MISSISSIPPI VALLEY STATE UNIV.</b> <b>6121</b> INTEGRATING REMOTE SENSING/GIS TECHNOLOGY & RSCH INTO MSET EDUCATION 05/01/2000 - 05/14/2002      FY00: \$200,000      Total: \$200,000 <i>Prin. Invest.:</i> C BLAND <i>Tech. Officer:</i> GSFC/C PERSON CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NCC 1 286</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6114</b> AERO-STRUCTURAL INTERACTION, ANALYSIS, AND SHAPE SENSITIVITY 04/17/1998 - 12/31/1999      FY00: -\$42      Total: \$99,958 <i>Prin. Invest.:</i> J C NEWMAN <i>Tech. Officer:</i> LARC/W K ANDERSON CASE Category: 11 - ASTRONOMY	<b>NAG13 51</b> <b>MISSISSIPPI VALLEY STATE UNIV.</b> <b>6122</b> INCORPORATING INFORMATION TECHNOLOGY TO ENTERPRISE ZONES AND EMPOWERMENT COMMUNITY SCHOOL SYSTEMS 06/30/1997 - 03/31/2000      FY00: \$0      Total: \$381,018 <i>Prin. Invest.:</i> S J WHITE <i>Tech. Officer:</i> JSC/N SULLIVAN CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NCC 1 330</b> <b>MISSISSIPPI STATE UNIVERSITY</b> <b>6115</b> SITUATION AWARENESS AND LEVELS OF AUTOMATION 03/31/1999 - 06/30/2000      FY00: \$13,795      Total: \$84,795 <i>Prin. Invest.:</i> D B KABER <i>Tech. Officer:</i> LARC/P C SCHUTTE, LARC/A T POPE CASE Category: 69 - PSYCHOLOGY, OTHER	<b>NAG13 98004</b> <b>MISSISSIPPI VALLEY STATE UNIV.</b> <b>6123</b> RESPONSE OF A LEAF AND CANOPY SPECTRAL REFLECTANCE TO DROUGHT STRESS IN SOYBEANS 03/31/1998 - 03/30/2001      FY00: \$99,470      Total: \$299,352 <i>Prin. Invest.:</i> R BAHADUR <i>Tech. Officer:</i> JSC/G CARTER CASE Category: 55 - AGRICULTURE

## MISSOURI

## NASA'S UNIVERSITY PROGRAM

<p><b>NAG13 99003 MISSISSIPPI VALLEY STATE UNIV. 6124</b>  IMPROVING TEACHERS AND STUDENTS ACHIEVEMENT IN MATHEMATICS  AND SCIENCE  02/17/1999 - 02/17/2002 FY00: \$198,672 Total: \$393,650  Prin. Invest.: S J WHITE  Tech. Officer: SSC/N S SULLIVAN  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 5 4570 UNIVERSITY OF SOUTHERN MISSISSIPPI 6132</b>  OPTICAL ASSESSMENT OF BIOGEOCHEMICAL PROPERTIES IN APPLICATION TO MULTI-SPECTRAL AND HIGH RESOLUTION  07/23/1997 - 10/14/2000 FY00: \$40,609 Total: \$260,988  Prin. Invest.: S LOHRENTZ  Tech. Officer: GSFC/J A CAMPBELL  CASE Category: 33 - OCEANOGRAPHY</p>
<p><b>NAG13 99026 MISSISSIPPI VALLEY STATE UNIV. 6125</b>  RESPONSE OF SOYBEAN LEAF &amp; CANOPY SPECTRAL REFLECTANCE TO  CHELATE ASSISTED LEAD EXTRACTOR PM  09/01/1999 - 09/27/2001 FY00: \$22,621 Total: \$122,621  Prin. Invest.: R BAHUR  Tech. Officer: JSC/R TRAVIS  CASE Category: 55 - AGRICULTURE</p>	<p><b>NAG 5 9770 UNIVERSITY OF SOUTHERN MISSISSIPPI 6133</b>  OPTICAL ASSESSMENT OF BIOGEOCHEMICAL PROPERTIES IN COASTAL  WATERS WITH APPLICATION TO MULTI-SPECTRAL  07/12/2000 - 06/30/2001 FY00: \$22,500 Total: \$22,500  Prin. Invest.: S E LOHRENTZ  Tech. Officer: GSFC/J MARRA  CASE Category: 33 - OCEANOGRAPHY</p>
<p><b>NAG 2 1204 UNIVERSITY OF MISSISSIPPI - MEDICAL CENTER 6126</b>  OTOLITH-CANAL CONVERGENCE IN VESTIBULAR NUCLEI NEURONS  04/06/1998 - 10/31/1999 FY00: \$0 Total: \$167,365  Prin. Invest.: J D DICKMAN  Tech. Officer: ARC/M MAVERNER, ARC/R D MACELROY  CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>	<p><b>NAG 8 1466 UNIVERSITY OF SOUTHERN MISSISSIPPI 6134</b>  FRONTAL POLYMERIZATION IN MICROGRAVITY  02/10/1998 - 01/31/2002 FY00: \$197,500 Total: \$453,750  Prin. Invest.: J A POJMAN  Tech. Officer: MSFC/W S SPEARMAN  CASE Category: 13 - PHYSICS</p>
<p><b>NAG 5 7671 UNIVERSITY OF MISSISSIPPI - MEDICAL CENTER 6127</b>  FUNDING FOR 'THE UTILITY OF LOW COST THERMAL SENSORS IN  ARCHAEOLOGICAL RESEARCH' (SENH98-0125)  09/01/1998 - 02/28/2001 FY00: \$0 Total: \$100,000  Prin. Invest.: J K JOHNSON  Tech. Officer: GSFC/H V FREY  CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p><b>NAG 8 1684 UNIVERSITY OF SOUTHERN MISSISSIPPI 6135</b>  "PHASE SEPARATION AND SELF-ASSEMBLY OF LIQUID CRYSTALS AND  POLYMER DISPERSIONS"  06/05/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  Prin. Invest.: J WHITEHEAD  Tech. Officer: MSFC/P DOTY  CASE Category: 49 - ENGINEERING, OTHER</p>
<p><b>NAG13 00036 UNIVERSITY OF MISSISSIPPI - UNIVERSITY 6128</b>  THE UNIVERSITY OF MS REMOTE SENSING AND SPACE LAW CENTER OF  EXCELLENCE  04/06/2000 - 04/05/2001 FY00: \$500,000 Total: \$500,000  Prin. Invest.: R BORNE, R MCLAUGHLIN, R RYCHLAK  Tech. Officer: SSC/K WITCHER  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	
<p><b>NAG13 00037 UNIVERSITY OF MISSISSIPPI - UNIVERSITY 6129</b>  THE UNIVERSITY OF MISSISSIPPI GEOINFORMATICS CENTER  05/08/2000 - 05/07/2002 FY00: \$1,826,459 Total: \$1,826,459  Prin. Invest.: G EASSON, NONE  Tech. Officer: SSC/N SOVIK  CASE Category: 32 - GEOLOGICAL SCIENCE</p>	
<p><b>NCC 5 405 UNIVERSITY OF MISSISSIPPI - UNIVERSITY 6130</b>  NASA EPSCOR: PREPARATORY GRANT PROPOSAL  05/17/1999 - 07/31/2001 FY00: \$225,000 Total: \$450,000  Prin. Invest.: P SUKANEK  Tech. Officer: GSFC/D DETROYE  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	
<p><b>NGT 5 40032 UNIVERSITY OF MISSISSIPPI - UNIVERSITY 6131</b>  TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  AND FELLOWSHIP PROGRAM.  02/13/1997 - 02/28/2001 FY00: \$306,250 Total: \$1,023,750  Prin. Invest.: M R DINGERSON  Tech. Officer: GSFC/L KEFFER  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	
	<p><b>NAG 1 2253 SAINT LOUIS UNIVERSITY 6136</b>  DEV OF A LOW REYNOLDS NUMBER TRANSITION-SENSITIZED TURBU-  LENCE MODEL  11/23/1999 - 12/31/2000 FY00: \$35,000 Total: \$35,000  Prin. Invest.: W D THACKER  Tech. Officer: LARC/J B GATSKI  CASE Category: 41 - AERONAUTICAL ENGR</p>
	<p><b>NAG 3 2245 SAINT LOUIS UNIVERSITY 6137</b>  INVESTIGATION OF POTENTIAL THERMAL PROCESSING TECHNIQUES FOR  THE ENHANCEMENT OF PS300 HIGHTEMPERAT  03/22/1999 - 10/14/1999 FY00: -\$1,010 Total: \$19,990  Prin. Invest.: P A BENOY  Tech. Officer: GRC/C CORTE  CASE Category: 46 - MECHANICAL ENGR</p>
	<p><b>NAG 3 2469 SAINT LOUIS UNIVERSITY 6138</b>  INVESTIGATION OF THERMAL PROCESSING ON THE PROPERTIES OF  PS304, A SOLID LUBRICANT COATING  06/27/2000 - 06/14/2001 FY00: \$32,201 Total: \$32,201  Prin. Invest.: P A BENOY  Tech. Officer: GRC/C DELLACORTE  CASE Category: 47 - METAL &amp; MATERIALS ENGR</p>

## MISSOURI



**NGT 5 50047 SAINT LOUIS UNIVERSITY 6139**  
 CHARACTERIZATION OF AN OSTEOBLASTIC SCAVENGER RECEPTOR  
 07/17/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: N PARTRIDGE  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER

**NGT 5 50201 SAINT LOUIS UNIVERSITY 6140**  
 TRANSCRIPTIONAL REGULATION OF DIFFERENTIATING OSTEOBLASTS  
 07/02/1998 - 06/30/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: N C PARTRIDGE  
 Tech. Officer: HQ/L SMITH  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 2 1372 UNIVERSITY OF MISSOURI - COLUMBIA 6141**  
 SIGNALING OF MUSCLE ATROPHY WITH UNLOADING  
 08/17/1999 - 12/31/2000 FY00: \$160,738 Total: \$214,987  
 Prin. Invest.: F W BOOTH  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIRONMENTAL), OTHER

**NAG 5 3778 UNIVERSITY OF MISSOURI - COLUMBIA 6142**  
 ICE SHEET ELEVATION CHANGE STUDIES USING IMPROVED RADAR ALTIMETRY  
 02/12/1997 - 12/31/1998 FY00: \$0 Total: \$87,722  
 Prin. Invest.: C A KLUEVER  
 Tech. Officer: GSFC/R H THOMAS  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 3900 UNIVERSITY OF MISSOURI - COLUMBIA 6143**  
 INTERCOMPARISON, VISUALIZATION AND ANALYSIS TESTBED ASSIMILATED  
 DATA SETS AND SATELLITE DATA  
 03/03/1997 - 02/28/2001 FY00: \$0 Total: \$405,838  
 Prin. Invest.: K PALANIAPPAN  
 Tech. Officer: GSFC/A NEGRI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4607 UNIVERSITY OF MISSOURI - COLUMBIA 6144**  
 VESTIBULAR ONTOGENY, ADAPTATION, AND THE EFFECTS OF LOADING IN  
 THE RAT  
 05/19/1997 - 11/14/2000 FY00: \$56,934 Total: \$296,020  
 Prin. Invest.: T A JONES  
 Tech. Officer: GSFC/M AVERNER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 6283 UNIVERSITY OF MISSOURI - COLUMBIA 6145**  
 INTELLIGENT VISUALIZATION OF EARTH SCIENCE DATASET STRUCTURES  
 AND DATA COMPRESSION STRATEGIES  
 09/26/1997 - 12/31/1999 FY00: \$0 Total: \$170,000  
 Prin. Invest.: X ZHAUNG  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER

**NAG 5 6685 UNIVERSITY OF MISSOURI - COLUMBIA 6146**  
 GPS MONITORING OF STRAIN ACCUMULATION IN THE NEW MEXICO  
 SEISMIC ZONE  
 11/25/1997 - 05/31/1999 FY00: -\$1,220 Total: \$16,696  
 Prin. Invest.: J F ENGELN  
 Tech. Officer: GSFC/H FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6714 UNIVERSITY OF MISSOURI - COLUMBIA 6147**  
 LONG TERM ELEVATION CHANGE OF THE GREENLAND ICE SHEET FROM  
 SATELLITE RADAR ALTIMETRY  
 12/10/1997 - 06/30/1999 FY00: \$0 Total: \$186,093  
 Prin. Invest.: C H DAVIS  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 6772 UNIVERSITY OF MISSOURI - COLUMBIA 6148**  
 INVESTIGATION OF A LARGE, COMPLETE SAMPLE OF GALAXY GROUPS  
 USING THE ROSAT ALL-SKY SURVEY  
 01/22/1998 - 01/31/2001 FY00: \$0 Total: \$90,767  
 Prin. Invest.: J BURNS  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6837 UNIVERSITY OF MISSOURI - COLUMBIA 6149**  
 GREENLAND ICE SHEET ELEVATION CHANGE STUDIES USING RADAR  
 ALTIMETRY WITH IMPROVED ORBIT ERROR ANALYSIS  
 01/08/1998 - 12/31/2000 FY00: \$0 Total: \$150,214  
 Prin. Invest.: D KLUEVER  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 6968 UNIVERSITY OF MISSOURI - COLUMBIA 6150**  
 UNIVERSITY OF MISSOURI INTERDISCIPLINARY REMOTE SENSING  
 PROGRAM: DEVELOPMENT AND DELIVERY OF MULTISOURCE  
 03/10/1998 - 02/29/2000 FY00: \$0 Total: \$90,610  
 Prin. Invest.: K PALANIAPPAN  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 8344 UNIVERSITY OF MISSOURI - COLUMBIA 6151**  
 BAYESIAN HIERARCHICAL AIR-SEA INTERACTION MODELING : DEVELOPMENT  
 AND APPLICATION IN THE LABR  
 04/13/1999 - 05/31/2001 FY00: \$15,459 Total: \$35,182  
 Prin. Invest.: C K WIKLE  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 8557 UNIVERSITY OF MISSOURI - COLUMBIA 6152**  
 ELEVATION CHANGE OF THE SOUTHERN GREENLAND ICE SHEET: INTERPRETATION  
 06/18/1999 - 12/31/2000 FY00: \$32,939 Total: \$59,378  
 Prin. Invest.: C DAVIS  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 9145 UNIVERSITY OF MISSOURI - COLUMBIA 6153**  
 ANDEAN MOUNTAIN BUILDING: AN INTEGRATED TOPOGRAPHIC GPS, SEISMOLOGICAL  
 AND NUMERICAL STUDY  
 03/07/2000 - 03/14/2001 FY00: \$37,500 Total: \$37,500  
 Prin. Invest.: M LIU  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9555 UNIVERSITY OF MISSOURI - COLUMBIA 6154**  
 EVOLUTION OF THE RIBOZYME RNASE P RNA BY TRANSCRIPTION  
 05/04/2000 - 04/30/2001 FY00: \$113,040 Total: \$113,040  
 Prin. Invest.: F SCHMIDT  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 99 - MULTI INTERDISCIPLINARY, OTHER

**NAG 9 915 UNIVERSITY OF MISSOURI - COLUMBIA 6155**  
 THERMAL MODELING FOR SPACESUIT DESIGN/CONTROL  
 11/06/1996 - 09/30/1999 FY00: \$0 Total: \$218,593  
*Prin. Invest.:* S NAIR  
*Tech. Officer:* JSC/C LIU  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 9 1210 UNIVERSITY OF MISSOURI - COLUMBIA 6156**  
 DESIGN & THERMAL CONTROL OF ADVANCED SPACE SUITS  
 03/24/2000 - 03/31/2003 FY00: \$74,999 Total: \$74,999  
*Prin. Invest.:* S S NAIR, J B MILES  
*Tech. Officer:* JSC/K L NYBERG/C H LIN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 1230 UNIVERSITY OF MISSOURI - COLUMBIA 6157**  
 CONSTRUCT THE LIFE SCIENCES CENTER  
 09/29/2000 - 08/31/2005 FY00: \$12,800,000 Total: \$12,800,000  
*Prin. Invest.:* G M CHIPPENDALE  
*Tech. Officer:* JSC/R P KEHOE, JSC/P CAMPBELL  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG13 00006 UNIVERSITY OF MISSOURI - COLUMBIA 6158**  
 CENTER FOR LOCAL AND REGIONAL GOVERNMENT APPLICATIONS (CLARA)  
 03/13/2000 - 05/31/2002 FY00: \$210,000 Total: \$210,000  
*Prin. Invest.:* D D HIPPLE  
*Tech. Officer:* SSC/R MCKELLIP  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG13 99014 UNIVERSITY OF MISSOURI - COLUMBIA 6159**  
 INSTITUTE FOR THE COMMERCIAL DEVELOPMENT OF REMOTE SENSING TECHNOLOGY (ICREST)  
 04/19/1999 - 04/25/2001 FY00: \$2,590,000 Total: \$3,590,000  
*Prin. Invest.:* D BLANCHARD  
*Tech. Officer:* JSC/R MCKELLIP  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 1 52239 UNIVERSITY OF MISSOURI - COLUMBIA 6160**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/26/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  
*Prin. Invest.:* O VASILYEV  
*Tech. Officer:* LARC/T B GATSKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50205 UNIVERSITY OF MISSOURI - COLUMBIA 6161**  
 VASCULAR CONTROL OF SKELETAL MUSCLE BLOOD FLOW AFTER SIMULATED MICROGRAVITY (GSRP STUDENT)  
 07/09/1998 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* M LAUGHLIN  
*Tech. Officer:* HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 8 52050 UNIVERSITY OF MISSOURI - COLUMBIA 6162**  
 ROBUST GUIDANCE SCHEMES FOR LOW THRUST EARTH ORBIT  
 07/27/1998 - 08/14/2000 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* C A KLUEVER  
*Tech. Officer:* MSFC/J F DOWDY  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 1 2167 UNIVERSITY OF MISSOURI - ROLLA 6163**  
 PERFORMANCE INVESTIGATION & CHARACTERIZATION OF SCRAMJET & DUAL-MODE SCRAMJET FLOW-FIELDS  
 03/19/1999 - 09/30/1999 FY00: \$0 Total: \$83,012  
*Prin. Invest.:* D W RIGGINS  
*Tech. Officer:* LARC/C R MCCLINTON, LARC/S H STACK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2109 UNIVERSITY OF MISSOURI - ROLLA 6164**  
 EXTENSION OF THE AFT FAN DUCT ACOUSTIC RADIATION CODES  
 01/15/1998 - 01/31/2000 FY00: \$0 Total: \$129,683  
*Prin. Invest.:* W EVERSMAN  
*Tech. Officer:* GRC/E ENVIA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2185 UNIVERSITY OF MISSOURI - ROLLA 6165**  
 ADVANCED EXTRACTIVE AEROSOL SAMPLING  
 07/27/1998 - 09/30/2000 FY00: \$140,000 Total: \$303,149  
*Prin. Invest.:* P D WHITEFIELD, D E HAGEN  
*Tech. Officer:* GRC/C C WEY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2186 UNIVERSITY OF MISSOURI - ROLLA 6166**  
 A STUDY OF THE PRODUCTION & GROWTH OF AEROSOL AS A FUNCTION OF JET FUEL SULFUR CONTENT IN WELL DEFINED  
 07/28/1998 - 04/27/2000 FY00: \$0 Total: \$54,119  
*Prin. Invest.:* P D WHITEFIELD  
*Tech. Officer:* GRC/C C WEY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2257 UNIVERSITY OF MISSOURI - ROLLA 6167**  
 AEROSOL CHARACTERISTICS (I) INSTRUMENT INTERCOMPARISON (II) GROUND-BASED EMISSIONS (III) CORRELATION STUDY  
 04/12/1999 - 04/30/2000 FY00: \$0 Total: \$45,000  
*Prin. Invest.:* P D WHITEFIELD  
*Tech. Officer:* GRC/C C WEY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2340 UNIVERSITY OF MISSOURI - ROLLA 6168**  
 STUDIES IN ACOUSTIC PROPAGATION AND RADIATION STUDIES IN ACOUSTIC PROPAGATION AND RADIATION  
 02/25/2000 - 01/31/2001 FY00: \$75,381 Total: \$75,381  
*Prin. Invest.:* W EVERSMAN  
*Tech. Officer:* GRC/E ENVIA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2357 UNIVERSITY OF MISSOURI - ROLLA 6169**  
 CHARACTERIZATION OF ENVIRONMENTAL DURABILITY OF A POLYMER MATRIX COMPOSITE  
 03/15/2000 - 02/06/2001 FY00: \$33,913 Total: \$33,913  
*Prin. Invest.:* D ROY  
*Tech. Officer:* GRC/M A MEADER  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 8 1465 UNIVERSITY OF MISSOURI - ROLLA 6170**  
 KINETICS OF NUCLEATION AND CRYSTAL GROWTH IN GLASS FORMING METALS IN MICROGRAVITY  
 02/10/1998 - 01/31/2002 FY00: \$195,000 Total: \$406,250  
*Prin. Invest.:* D E DAY, C S RAY  
*Tech. Officer:* MSFC/M PURVEY  
 CASE Category: 13 - PHYSICS

## NASA'S UNIVERSITY PROGRAM

MISSOURI

**NAG 8 1656 UNIVERSITY OF MISSOURI - ROLLA 6171**  
 MODELS OF MASS TRANSPORT DURING MICROGRAVITY CRY- STAL  
 GROWTH OF ALLOYED SEMICONDUCTORS IN A MAGNETIC  
 04/24/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: N MA  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 3 343 UNIVERSITY OF MISSOURI - ROLLA 6172**  
 PARTICULATE EMISSIONS CHARACTERIZATION FOR HSCT RELATED  
 TESTS: FLAME TUBE, ANNULAR SECTOR COMBUSTOR  
 04/25/1994 - 12/03/1999 FY00: \$0 Total: \$975,000  
 Prin. Invest.: P WHITFIELD, D HAGEN, H LILLENFELD  
 Tech. Officer: GRC/R W NIEDZWIECKI, GRC/K P KUNDU  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NGT 5 40060 UNIVERSITY OF MISSOURI - ROLLA 6173**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 03/04/1997 - 02/28/2001 FY00: \$212,500 Total: \$807,500  
 Prin. Invest.: B P SELBERG  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1656 UNIVERSITY OF MISSOURI - SAINT LOUIS 6174**  
 COMPUTER-AIDED POLYMER DESIGN FOR NASA'S HIGH- SPEED CIVILIAN  
 TRANSPORT  
 11/18/1994 - 01/31/1999 FY00: -\$357 Total: \$150,018  
 Prin. Invest.: W J WELSH  
 Tech. Officer: LARC/J A HINKLEY, LARC/T S GATES  
 CASE Category: 12 - CHEMISTRY

**NAG 5 6091 UNIVERSITY OF MISSOURI - SAINT LOUIS 6175**  
 METHANE ABSORPTION SPECTROSCOPY IN THE 700-1000NM RANGE  
 DEPENDENCES & DETERMINATIONS OF THE INTER-BAND  
 08/26/1997 - 06/14/2001 FY00: \$0 Total: \$100,000  
 Prin. Invest.: D J O'BRIEN  
 Tech. Officer: GSFC/J BERGSTRAHL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 945 WASHINGTON UNIVERSITY - ST. LOUIS 6176**  
 CHRONIC RECORDING OF OTOLITH NERVES IN MICROGRAVITY  
 12/16/1994 - 11/30/1999 FY00: \$0 Total: \$1,029,992  
 Prin. Invest.: S M HIGHSTEIN  
 Tech. Officer: ARC/W E HINDS, ARC/C M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1910 WASHINGTON UNIVERSITY - ST. LOUIS 6177**  
 GAS - PHASE COMBUSTION SYNTHESIS OF METAL AND CERAMIC NANO-  
 PARTICLES  
 06/24/1996 - 06/22/2001 FY00: \$23,687 Total: \$288,238  
 Prin. Invest.: R L AXELBAUM, B H CHAO  
 Tech. Officer: GRC/S A GOKOGLU  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 2982 WASHINGTON UNIVERSITY - ST. LOUIS 6178**  
 CHANGES ASSOCIATED WITH LEVEE BREAK LANDFORMS AND DEPOSITS  
 FROM THE 1993 MISSOURI RIVER FLOOD  
 06/28/1995 - 07/31/1999 FY00: -\$205 Total: \$213,035  
 Prin. Invest.: R E ARVIDSON  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3657 WASHINGTON UNIVERSITY - ST. LOUIS 6179**  
 STRUCTURE AND EVOLUTION OF OUTER PLANET SATELLITES  
 03/19/1997 - 10/31/2000 FY00: \$29,355 Total: \$120,732  
 Prin. Invest.: W B MCKINNON  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3870 WASHINGTON UNIVERSITY - ST. LOUIS 6180**  
 SURFACE PROCESSES ON VENUS AND MARS  
 02/11/1997 - 03/31/2001 FY00: \$153,900 Total: \$649,054  
 Prin. Invest.: R E ARVIDSON  
 Tech. Officer: GSFC/D G SENSKE  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4098 WASHINGTON UNIVERSITY - ST. LOUIS 6181**  
 ISOTOPIC STRUCTURES AND FINE-SCALE CHRONOLOGY IN P  
 06/23/1997 - 03/31/2001 FY00: \$106,000 Total: \$427,000  
 Prin. Invest.: D A PODOSEK  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4172 WASHINGTON UNIVERSITY - ST. LOUIS 6182**  
 ANALYTICAL, EXPERIMENTAL, AND MODELING STUDIES OF IGNEOUS  
 ROCKS  
 04/09/1997 - 06/30/2001 FY00: \$248,000 Total: \$988,000  
 Prin. Invest.: D A HASKIN  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 12 - CHEMISTRY

**NAG 5 4173 WASHINGTON UNIVERSITY - ST. LOUIS 6183**  
 LUNAR AND PLANETARY SURFACE DYNAMICS AND EARLY HISTORY  
 06/02/1997 - 12/14/1999 FY00: \$0 Total: \$645,000  
 Prin. Invest.: D HOHENBERG  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 12 - CHEMISTRY

**NAG 5 4323 WASHINGTON UNIVERSITY - ST. LOUIS 6184**  
 KINETICS OF THERMOCHEMICAL GAS-SOLID REACTIONS IMPACT RETENTION  
 IN THE SOLAR NEBULA: IMPLICATIONS FOR  
 04/09/1997 - 01/31/2001 FY00: \$55,000 Total: \$232,814  
 Prin. Invest.: D FEGLEY  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4435 WASHINGTON UNIVERSITY - ST. LOUIS 6185**  
 PARTICIPATION IN THE DATA ANALYSIS AND SCIENCE ACT ORBITING  
 LASER ALTIMETER (MOLA) & THE MARS GLOBAL  
 04/28/1997 - 12/31/2000 FY00: \$52,500 Total: \$435,000  
 Prin. Invest.: R J PHILLIPS, NONE  
 Tech. Officer: GSFC/D E SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4448 WASHINGTON UNIVERSITY - ST. LOUIS 6186**  
 PLANETARY INTERIOR MODELLING AND TECTONIC IMPLICATIONS  
 05/08/1997 - 12/31/2000 FY00: \$111,150 Total: \$437,150  
 Prin. Invest.: D J PHILLIPS  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4493 WASHINGTON UNIVERSITY - ST. LOUIS 6187**  
 SOLID STATE AND MASS SPECTROMETRIC MEASUREMENTS OF MATERIALS  
 05/13/1997 - 02/28/1999 FY00: \$0 Total: \$1,800,000  
 Prin. Invest.: D M WALKER  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 12 - CHEMISTRY

**NAG 5 4564 WASHINGTON UNIVERSITY - ST. LOUIS 6188**  
 KINETICS OF THERMOCHEMICAL REACTIONS IMPORTANT IN SULFUR CYCLE  
 05/29/1997 - 12/31/2000 FY00: \$85,945 Total: \$343,206  
 Prin. Invest.: D FEGLEY  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4565 WASHINGTON UNIVERSITY - ST. LOUIS 6189**  
 CHEMICAL WEATHERING KINETICS OF BASALT ON VENUS  
 05/30/1997 - 02/14/2001 FY00: \$56,964 Total: \$227,838  
 Prin. Invest.: D FEGLEY  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4642 WASHINGTON UNIVERSITY - ST. LOUIS 6190**  
 RAMAN SPECTROMETER FOR SURFACE IDENTIFICATION OF M COMPOUNDS ON SILICATE PLANETS AND SMALL SOLAR-SYS  
 06/06/1997 - 06/30/2000 FY00: \$0 Total: \$167,390  
 Prin. Invest.: D A HASKIN  
 Tech. Officer: GSFC/B CAMPBELL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 5078 WASHINGTON UNIVERSITY - ST. LOUIS 6191**  
 BASIC RESEARCH ON THE COMPOSITION OF HEAVY COSMIC RAYS: TIGER  
 05/03/1996 - 11/30/2000 FY00: \$369,700 Total: \$1,487,700  
 Prin. Invest.: R W BINNS  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5110 WASHINGTON UNIVERSITY - ST. LOUIS 6192**  
 DEVELOPMENT OF SIFTER WITH SIMULTANEOUS TRACKING AND CALORIMETRY  
 02/12/1997 - 11/30/1999 FY00: \$0 Total: \$410,000  
 Prin. Invest.: R BINNS  
 Tech. Officer: GSFC/H NEEDLEMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 5114 WASHINGTON UNIVERSITY - ST. LOUIS 6193**  
 A BALLOON-BORNE HARD X-RAY IMAGING SPECTROMETER BASED ON CDZNTTE TECHNOLOGY  
 04/09/1997 - 09/30/2000 FY00: \$0 Total: \$161,000  
 Prin. Invest.: P L HINK  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5154 WASHINGTON UNIVERSITY - ST. LOUIS 6194**  
 ULTRA HEAVY AND HEAVY COSMIC-RAY MEASUREMENTS ON ACCESS  
 03/26/1998 - 12/31/2000 FY00: \$10,771 Total: \$112,160  
 Prin. Invest.: W R BINNS  
 Tech. Officer: GSFC/H NEEDLEMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 5215 WASHINGTON UNIVERSITY - ST. LOUIS 6195**  
 A PROPOSAL FOR CONVERSION OF THE TRANS-IRON GALACTIC ELEMENT RECORDER (TIGER) PINK  
 12/01/1998 - 11/30/2001 FY00: \$91,572 Total: \$320,290  
 Prin. Invest.: P HINK  
 Tech. Officer: GSFC/B MERRITT  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 5296 WASHINGTON UNIVERSITY - ST. LOUIS 6196**  
 SIFTER SCINTILLATING FIBER TELESCOPE FOR ENERGETIC  
 06/12/2000 - 06/07/2001 FY00: \$64,000 Total: \$64,000  
 Prin. Invest.: W R BINNS  
 Tech. Officer: WFF/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 6125 WASHINGTON UNIVERSITY - ST. LOUIS 6197**  
 ACOUSTIC COMPOSITION EXPERIMENT FOR DETERMINING H2 RATIO IN THE ATMOSPHERES OF THE JOVIAN PLANETS  
 08/04/1997 - 07/14/2001 FY00: \$0 Total: \$467,327  
 Prin. Invest.: D FEGLEY  
 Tech. Officer: GSFC/B CAMPBELL  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6291 WASHINGTON UNIVERSITY - ST. LOUIS 6198**  
 DEVELOPMENT OF A "NANOSIMS" ION MICROPROBE SUITABLE LYSIS OF RETURNED SAMPLES FROM THE "STARDUST" MIS  
 09/10/1997 - 11/30/1999 FY00: \$0 Total: \$217,791  
 Prin. Invest.: D WALKER  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6366 WASHINGTON UNIVERSITY - ST. LOUIS 6199**  
 CHEMICAL MODELS OF THE PRESENT AND PRIMORDIAL ATMOSPHERES OF GIANT PLANETS JUPITER, SATURN, URANUS AND NEPTUNE  
 09/22/1997 - 12/31/2000 FY00: \$57,274 Total: \$220,126  
 Prin. Invest.: D FEGLEY  
 Tech. Officer: GSFC/J BERGSTRAHL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6756 WASHINGTON UNIVERSITY - ST. LOUIS 6200**  
 REGIONAL PLANETARY IMAGE FACILITY  
 12/24/1997 - 12/14/2000 FY00: \$19,950 Total: \$61,951  
 Prin. Invest.: R ARVIDSON  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6784 WASHINGTON UNIVERSITY - ST. LOUIS 6201**  
 COMPOSITION, LITHOLOGY, AND HETEROGENEITY OF THE LUNAR CRUST USING REMOTE-SENSING OF IMPACT-B  
 01/28/1998 - 04/30/2000 FY00: \$0 Total: \$63,200  
 Prin. Invest.: B L JOLLIFF  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7140 WASHINGTON UNIVERSITY - ST. LOUIS 6202**  
 OPTICAL DESIGN AND BREADBOARD OF A RAMAN SPECTROMETER  
 03/13/1998 - 03/31/2001 FY00: \$97,026 Total: \$267,726  
 Prin. Invest.: L HASKIN  
 Tech. Officer: GSFC/B CAMPBELL  
 CASE Category: 11 - ASTRONOMY

<b>NAG 5 7149</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6203</b> STUDIES OF PRESOLAR MATERIALS AND SOLAR NEBULA STRUCTURE AND EVOLUTION 03/23/1998 - 07/31/2000      FY00: \$0      Total: \$163,717 Prin. Invest.: F PODOSEK Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY	<b>NAG 5 8609</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6211</b> SYNTHESIZING LUNAR PROSPECTOR, CLEMENTINE, AND APO LLO GEOCHEMICAL DATA TO UNDERSTAND THE GEOLOGY OF 06/10/1999 - 06/30/2001      FY00: \$66,000      Total: \$106,000 Prin. Invest.: R L KOROTEV Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 7613</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6204</b> DYNAMICS OF WETLANDS AMONG ENGINEERED PORTIONS OF MISSOURI RIVER SYSTEM 07/22/1998 - 01/31/2001      FY00: \$120,000      Total: \$300,000 Prin. Invest.: R E ARVIDSON Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 5 8717</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6212</b> GLOBAL CHEMICAL REACTOR OF PROTOPLANETARY DISK 08/10/1999 - 07/31/2001      FY00: \$22,000      Total: \$45,000 Prin. Invest.: J T GLEAVES Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 7696</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6205</b> HYDROTHERMAL ECOSYSTEMS IN A PLANETARY CONTEXT 09/17/1998 - 07/31/2001      FY00: \$0      Total: \$289,797 Prin. Invest.: E L SHOCK Tech. Officer: GSFC/M MEYER CASE Category: 11 - ASTRONOMY	<b>NAG 5 8729</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6213</b> PURCHASE AND INSTALLATION OF NANOSIMS 50 08/10/1999 - 07/31/2001      FY00: \$333,000      Total: \$733,000 Prin. Invest.: R M WALKER Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 8056</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6206</b> DEFORMATION OF THE EUROPEAN ICE SHELL BY TIDAL AND CONVECTION STRESSES 01/15/1999 - 01/31/2001      FY00: \$53,000      Total: \$103,000 Prin. Invest.: W B MCKINNON Tech. Officer: GSFC/R BEEBE CASE Category: 11 - ASTRONOMY	<b>NAG 5 8899</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6214</b> DEFORMATION OF THE EUROPEAN ICE SHELL BY TIDAL AND CONVECTIVE STRESSES: CONSTRAINTS FROM GEM DATA 01/13/2000 - 01/31/2001      FY00: \$29,000      Total: \$29,000 Prin. Invest.: W MCKINNON Tech. Officer: GSFC/D BOGAN CASE Category: 11 - ASTRONOMY
<b>NAG 5 8194</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6207</b> ADAPTIVE VISUAL-VESTIBULAR MECHANISMS AND GRAVITY 05/12/1999 - 06/30/2000      FY00: \$0      Total: \$99,999 Prin. Invest.: D E ANGELAKI Tech. Officer: GSFC/C SAWIN CASE Category: 59 - LIFE SCIENCE, OTHER	<b>NAG 5 8905</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6215</b> COMPOSITION, LITHOLOGY, AND HETEROGENEITY OF THE LUNAR CRUST USING REMOTE-SENSING OF IMPACT-BASIN 01/21/2000 - 01/31/2001      FY00: \$36,100      Total: \$36,100 Prin. Invest.: B L JOLLIFF Tech. Officer: GSFC/J GRANT CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 8336</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6208</b> SOLID STATE AND MASS SPECTROMETRIC MEASUREMENT OF EXTRATERRESTRIAL MATERIALS 02/24/1999 - 02/28/2001      FY00: \$696,000      Total: \$1,576,000 Prin. Invest.: T J BERNATOWICZ Prin. Invest.: NONE Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY	<b>NAG 5 9442</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6216</b> LUNAR & PLANETARY SURFACE DYNAMICS & EARLY HISTORY 04/14/2000 - 04/14/2001      FY00: \$217,000      Total: \$217,000 Prin. Invest.: C M HOHENBERG Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY
<b>NAG 5 8536</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6209</b> DEVELOPMENT OF HIGH QUANTUM EFFICIENCY UV/BLEU PHOTO-CATHODE EPITAXIAL SEMICONDUCTOR HETEROSTRUCTURE 07/08/1999 - 07/14/2001      FY00: \$290,667      Total: \$576,028 Prin. Invest.: D LEOPOLD Tech. Officer: GSFC/G MUCKLOW CASE Category: 12 - CHEMISTRY	<b>NAG 5 9449</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6217</b> STUDIES OF PRESOLAR MATERIALS AND SOLAR NEBULA STRUCTURE AND EVOLUTION 04/12/2000 - 04/30/2001      FY00: \$74,000      Total: \$74,000 Prin. Invest.: F PODOSEK Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 8568</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6210</b> THE HIGH ENERGY X-RAY IMAGING SURVEY (HEXIS) 05/24/1999 - 05/31/2001      FY00: \$12,000      Total: \$45,000 Prin. Invest.: P L HINK Tech. Officer: GSFC/L KALUZIENSKI CASE Category: 49 - ENGINEERING, OTHER	<b>NAG 5 9801</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6218</b> ORIGIN & EVOLUTION OF THE SOLAR SYSTEM: MICROANALYTICAL STUDIES OF METEORITES & INTERPLANETARY DUST 07/14/2000 - 06/30/2001      FY00: \$185,000      Total: \$185,000 Prin. Invest.: R M WALKER Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY

## MONTANA

## NASA'S UNIVERSITY PROGRAM

<b>NAG 8 1682</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6219</b> "STUDIES OF NUCLEATION AND GROWTH, SPECIFIC HEAT AND VISCOSITY OF UNDER COOLED MELTS OF ALLOYS" 05/01/2000 - 11/30/2003      FY00: \$79,979      Total: \$79,979 <i>Prin. Invest.:</i> K F KELTON <i>Tech. Officer:</i> MSFC/P DOTY <i>CASE Category:</i> 47 - METAL & MATERIALSENGR	<b>NCC 8 154</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6227</b> COOPERATIVE AGREEMENT ENTITLED "IMAGING CALORIMETER FOR ACCESS (ICA)" 07/10/1998 - 07/09/2001      FY00: \$20,000      Total: \$119,600 <i>Prin. Invest.:</i> P L HINK, M H ISRAEL, R W BINNS <i>Tech. Officer:</i> MSFC/M CHRISTI, MSFC/M J CHRISTL <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 9 1006</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6220</b> GENESIS: NOBLE GAS MEASUREMENTS PHASE B 04/29/1998 - 03/31/2002      FY00: \$73,500      Total: \$183,100 <i>Prin. Invest.:</i> C M HOHENBERG <i>Tech. Officer:</i> JSC/K E CYR <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER	<b>NGT 1 52197</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6228</b> GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) 06/09/1998 - 06/30/2000      FY00: \$12,000      Total: \$44,000 <i>Prin. Invest.:</i> K R WATERS <i>Tech. Officer:</i> LARC/P H JOHNSTON <i>CASE Category:</i> 13 - PHYSICS
<b>NAG 9 1010</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6221</b> GENESIS DISCOVERY MISSION 05/05/1998 - 08/08/2001      FY00: \$21,600      Total: \$56,600 <i>Prin. Invest.:</i> F A PODOSEK <i>Tech. Officer:</i> JSC/E K STANSBERY <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER	<b>NGT 5 50023</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6229</b> TIGER: A COSMIC RAY DETECTOR USED TO STUDY THE ABU ELEMENTS 08/04/1997 - 06/30/2000      FY00: \$0      Total: \$86,000 <i>Prin. Invest.:</i> SPOSATO <i>Tech. Officer:</i> GSFC/A NURRIDIN <i>CASE Category:</i> 41 - AERONAUTICAL ENGR
<b>NAS 3 00094</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6222</b> NRA CONTRACT FOR "SEARCH FOR EFFECTS OF ELECTROSTA TIC POTENTIAL ON CLOCKS IN THE FRAME OF REFERENCE" 12/27/1999 - 12/26/2000      FY00: \$99,985      Total: \$99,985 <i>Prin. Invest.:</i> M S CONRAD, H I RINGERMACHER <i>Tech. Officer:</i> GRC/M MILLIS <i>CASE Category:</i> 13 - PHYSICS	<b>NGT 5 50030</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6230</b> COMPOSITIONAL EFFECTS ON TIME DEPENDENT NUCLEATION 08/04/1997 - 06/30/2001      FY00: \$0      Total: \$86,000 <i>Prin. Invest.:</i> K KELTON/CROAT <i>Tech. Officer:</i> GSFC/A NURRIDDI <i>CASE Category:</i> 11 - ASTRONOMY
<b>NCC 2 5244</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6223</b> EXPERIMENTAL INVESTIGATION OF ORGANIC SYNTHESIS IN HYDRO-THERMAL ENVIRONMENTS 11/14/1997 - 10/31/1998      FY00: -\$3,030      Total: \$60,472 <i>Prin. Invest.:</i> E L SHOCK <i>Tech. Officer:</i> ARC/S CHANG, ARC/M FONDA <i>CASE Category:</i> 12 - CHEMISTRY	<b>NGT 5 50063</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6231</b> TECTONIC PROCESSES ON ICY SATELLITES 08/15/1997 - 06/30/2000      FY00: \$0      Total: \$86,000 <i>Prin. Invest.:</i> W B MCKINNON/DOMBAR <i>Tech. Officer:</i> GSFC/A NURRIDIN <i>CASE Category:</i> 41 - AERONAUTICAL ENGR
<b>NCC 3 687</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6224</b> FLAE DESIGN - A NOVAL APPROACH TO CLEAN, EFFICIENT DIFUSSION FLAMES 03/26/1999 - 01/13/2003      FY00: \$77,752      Total: \$125,732 <i>Prin. Invest.:</i> R L AXELBAUM <i>Tech. Officer:</i> GRC/D L URBAN <i>CASE Category:</i> 49 - ENGINEERING, OTHER	<b>NGT 5 50170</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6232</b> GRADUATE STUDENT RESEARCH IN X-RAY ASTRONOMY 05/22/1998 - 08/30/2001      FY00: \$22,000      Total: \$86,000 <i>Prin. Invest.:</i> P L HINK/SALVIS <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 13 - PHYSICS
<b>NCC 3 777</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6225</b> OPTIMIZING THE CORBA COMPONENT MODEL FOR HIGH-PERF ORMANCE AND REAL-TIME APPLICATIONS 02/24/2000 - 01/20/2003      FY00: \$80,000      Total: \$60,000 <i>Prin. Invest.:</i> D L LEVINE <i>Tech. Officer:</i> GRC/R W CLAUS <i>CASE Category:</i> 41 - AERONAUTICAL ENGR	<b>NGT 5 50240</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6233</b> GRADUATE STUDENT RSCH IN COSMIC RAY ASTROPHYSICS 06/03/1999 - 06/30/2001      FY00: \$22,000      Total: \$44,000 <i>Prin. Invest.:</i> M ISRAEL <i>Tech. Officer:</i> GSFC/L SMITH <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER
<b>NCC 8 85</b> <b>WASHINGTON UNIVERSITY - ST. LOUIS</b> <b>6226</b> COMPOSITION EFFECTS ON PHASE FORMATION & STABILITY 04/22/1996 - 04/21/2001      FY00: \$47,914      Total: \$467,400 <i>Prin. Invest.:</i> K F KELTON <i>Tech. Officer:</i> MSFC/P DOTY <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER	<b>NAG 2 1018</b> <b>MONTANA STATE UNIVERSITY</b> <b>6234</b> BACTERIAL GROWTH ON SURFACES IN MICROGRAVITY & ON EARTH 10/25/1995 - 04/30/2000      FY00: \$0      Total: \$211,950 <i>Prin. Invest.:</i> B H PYLE, G A MCFETERS <i>Tech. Officer:</i> ARC/C M WINGET, ARC/G C JAHNS <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)

## MONTANA

**NAG 2 1323** **MONTANA STATE UNIVERSITY** **6235**  
 SPATIO-SPECTRAL HOLOGRAPHY FOR HIGH BANDWIDTH CORR ELATORS  
 04/29/1999 - 12/31/2000 FY00: \$1,673,000 Total: \$3,346,000  
 Prin. Invest.: A E CRAIG  
 Tech. Officer: ARC/W F BROOKS, ARC/D KOGA  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 5 3159** **MONTANA STATE UNIVERSITY** **6236**  
 THERMAL EVOLUTION AND RELATED PROBLEMS OF NEUTRON STRATS  
 01/24/1996 - 09/30/1999 FY00: \$28,000 Total: \$84,000  
 Prin. Invest.: S TSURUTA  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3652** **MONTANA STATE UNIVERSITY** **6237**  
 MOLECULAR AND GEOCHEMICAL ANALYSIS OF HOT SPRING C ROFLEXUS  
 MATS AS STROMATOLITE ANALOGS  
 03/25/1997 - 06/30/2000 FY00: \$0 Total: \$274,062  
 Prin. Invest.: M G WARD  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 12 - CHEMISTRY

**NAG 5 3688** **MONTANA STATE UNIVERSITY** **6238**  
 X-RAY AND SPIN VARIABILITY IN NEUTRON STARS AND NE  
 01/15/1997 - 06/14/2000 FY00: \$0 Total: \$59,416  
 Prin. Invest.: S K LINK  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4576** **MONTANA STATE UNIVERSITY** **6239**  
 CENTER FOR EDUCATIONAL RESOURCES  
 05/13/1997 - 09/30/1999 FY00: \$0 Total: \$999,975  
 Prin. Invest.: G TUTHILL  
 Tech. Officer: GSFC/M V PHELPS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6005** **MONTANA STATE UNIVERSITY** **6240**  
 CAUSES AND CONSEQUENCES OF LAND-COVER IN A GREATER  
 ASSESSMENT, MONITORING AND OUTREACH  
 09/11/1997 - 07/14/2001 FY00: \$0 Total: \$565,010  
 Prin. Invest.: A HASEN  
 Tech. Officer: GSFC/A C JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6110** **MONTANA STATE UNIVERSITY** **6241**  
 MAGNETIC HELICITY AND THE SOLAR DYNAMO  
 07/28/1997 - 07/31/2001 FY00: \$59,315 Total: \$659,724  
 Prin. Invest.: D CANFIELD  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7877** **MONTANA STATE UNIVERSITY** **6242**  
 APPLICATION OF THREE-DIMENSIONAL, TIME DEPENDENT M ODELING TO  
 SURVEY OF X-RAY BRIGHT POINTS.  
 11/30/1998 - 12/14/1999 FY00: \$0 Total: \$47,815  
 Prin. Invest.: C C KANKELBORG  
 Tech. Officer: GSFC/J GURMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8807** **MONTANA STATE UNIVERSITY** **6243**  
 CENTER FOR STUDYING LIFE IN EXTREME ENVIRONMENTS  
 09/03/1999 - 08/31/2001 FY00: \$0 Total: \$1,873,000  
 Prin. Invest.: T R MCDERMOTT  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8824** **MONTANA STATE UNIVERSITY** **6244**  
 MOLECULAR AND GEOCHEMICAL ANALYSIS OF HOT SPRING CYANOBAC-  
 TERIAL & CHLOROFLEXUS MATS AS STROMATOLITE  
 09/22/1999 - 10/31/2001 FY00: \$94,200 Total: \$194,200  
 Prin. Invest.: D M WARD  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9300** **MONTANA STATE UNIVERSITY** **6245**  
 MONITORING FOREST RESPONSE TO PAST & FUTURE GLOBAL CHANGE IN  
 GREATER YELLOWSTONE  
 04/07/2000 - 04/30/2001 FY00: \$86,282 Total: \$86,282  
 Prin. Invest.: A HANSEN  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9806** **MONTANA STATE UNIVERSITY** **6246**  
 CHANGING LANDSCAPED IN RURAL AMERICA  
 07/13/2000 - 08/31/2001 FY00: \$15,000 Total: \$15,000  
 Prin. Invest.: A HANSEN  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1399** **MONTANA STATE UNIVERSITY** **6247**  
 LARGE SCALE ORGANIZATION OF ACTIVE REGION MAGNETIC FIELDS  
 08/11/1997 - 08/10/2001 FY00: \$0 Total: \$184,330  
 Prin. Invest.: R C CANFIELD  
 Tech. Officer: MSFC/M J HAGYARD, MSFC/G A GARY  
 CASE Category: 11 - ASTRONOMY

**NAG 9 1082** **MONTANA STATE UNIVERSITY** **6248**  
 RAPID BACTERIAL TESTING FOR SPACECRAFT WATER  
 03/03/1999 - 03/31/2002 FY00: \$70,000 Total: \$216,795  
 Prin. Invest.: B H PYLE  
 Tech. Officer: JPL/D JAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1073** **MONTANA STATE UNIVERSITY** **6249**  
 COMPARATIVE STUDIES OF MICROBIAL MATS: COMMUNITY COMPOSI-  
 TION, PHYSIOLOGICAL & ORGANIC GEOCHEMICAL P  
 12/08/1998 - 12/31/2001 FY00: \$61,013 Total: \$101,013  
 Prin. Invest.: D M WARD Prin. Invest.: NONE  
 Tech. Officer: ARC/D J DES MARAIS, ARC/B BEBOUT  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NCC 2 1143** **MONTANA STATE UNIVERSITY** **6250**  
 BACTERIAL PHYSIOLOGY & VIRULENCE ON EARTH & IN MIC ROGRAVITY  
 09/19/1999 - 08/31/2001 FY00: \$66,000 Total: \$190,001  
 Prin. Invest.: B H PYLE  
 Tech. Officer: ARC/M F VASQUES, ARC/P D SAVAGE  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 1181 MONTANA STATE UNIVERSITY 6251**  
 STUDENT-MENTOR PROJECTS IN SUPPORT OF NASA SHARP PROGRAM  
 EXPERIMENTS  
 05/23/2000 - 05/31/2001 FY00: \$91,357 Total: \$91,357  
*Prin. Invest.:* D CAIRNS  
*Tech. Officer:* ARC/P KOLODZIEJ, ARC/D J RASKY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 5277 MONTANA STATE UNIVERSITY 6252**  
 MICROBIOLOGICAL SENSING SYSTEM FOR A EUROPA PROBE APPLICATION  
 07/21/1998 - 09/30/1999 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* B H PYLE, G MCFETERS  
*Tech. Officer:* ARC/M T FLYNN  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 5 240 MONTANA STATE UNIVERSITY 6253**  
 MONTANA EPSCOR PROGRAM  
 09/12/1997 - 02/28/2002 FY00: \$400,000 Total: \$1,800,000  
*Prin. Invest.:* W HISCOCK  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 410 MONTANA STATE UNIVERSITY 6254**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/18/1999 - 05/31/2001 FY00: \$225,000 Total: \$450,000  
*Prin. Invest.:* W HISCOCK  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40036 MONTANA STATE UNIVERSITY 6255**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 01/31/1997 - 02/28/2001 FY00: \$475,000 Total: \$1,411,250  
*Prin. Invest.:* W A HISCOCK  
*Tech. Officer:* GSFC/D DETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50235 MONTANA STATE UNIVERSITY 6256**  
 THE ADAPTIVE PHYSIOLOGY OF MICROBIAL LIFE IN PERMANENT  
 ANTARCTIC LAKE ICE (STUDENT: NINABAUM)  
 06/04/1999 - 01/10/2000 FY00: -\$22,000 Total: \$0  
*Prin. Invest.:* J PRISCU  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50297 MONTANA STATE UNIVERSITY 6257**  
 ECOLOGY & NITROGEN BIOGEOCHEMISTRY OF ANANTARCTIC LAKE ICE/  
 STUDENT: AARON D. HALL  
 06/27/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* J C PRISCU  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9139 MONTANA TECH OF THE UNIV OF MONTANA 6258**  
 STEP CAREERS IN RESEARCH EXPLORATION PROGRAM  
 02/29/2000 - 02/28/2003 FY00: \$16,035 Total: \$16,035  
*Prin. Invest.:* T MOON  
*Tech. Officer:* GSFC/N KHAZENIE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1096 MONTANA TECH OF THE UNIV OF MONTANA 6259**  
 JOVE  
 10/18/1994 - 11/30/1998 FY00: \$0 Total: \$100,501  
*Prin. Invest.:* T MOON, K OLSON  
*Tech. Officer:* MSFC/F SIX  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NAG 4 128 SALISH KOOTENAI COLLEGE 6260**  
 ALL NATIONS ALLIANCE FOR AMERICAN INDIANS IN SCIENCE, ENGINEERING  
 AND MATHEMATICS  
 04/23/1997 - 07/31/2000 FY00: \$0 Total: \$800,000  
*Prin. Invest.:* J GOBERT  
*Tech. Officer:* DFRC/M C MCCARTHY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 9102 SALISH KOOTENAI COLLEGE 6261**  
 EARTH SYSTEM SCIENCE STUDENT RESEARCH EXPERIENCES AT SALISH  
 KOOTENAI COLLEGE  
 03/02/2000 - 01/31/2001 FY00: \$107,508 Total: \$107,508  
*Prin. Invest.:* T S OLSON  
*Tech. Officer:* GSFC/N K HAZENIE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9147 SALISH KOOTENAI COLLEGE 6262**  
 NORTHERN ROCKY MOUNTAIN TRIBAL PATHWAY TO ACADEMIC EXCELLENCE  
 PROGRAM  
 03/03/2000 - 03/14/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* J M GOBERT  
*Tech. Officer:* GSFC/M STOUTSENBERGER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9368 SALISH KOOTENAI COLLEGE 6263**  
 NASA NATIVE EARTH SYSTEMS SCIENCE CURRICULUM PROJECT (NESCIP)  
 04/03/2000 - 03/31/2001 FY00: \$154,718 Total: \$154,718  
*Prin. Invest.:* J M GOBERT  
*Tech. Officer:* GSFC/N KHAZENIE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9541 SALISH KOOTENAI COLLEGE 6264**  
 RELATIVISTIC DISSIPATIVE FLUID THEORIES OF NEUTRON STARS  
 06/08/2000 - 06/14/2001 FY00: \$48,051 Total: \$48,051  
*Prin. Invest.:* T OLSON  
*Tech. Officer:* GSFC/D MENCHAN  
*CASE Category:* 21 - MATHEMATICS

**NAG 5 3469 UNIVERSITY OF MONTANA 6265**  
 ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS ON CYCLE  
 CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND  
 11/02/1996 - 10/31/1999 FY00: -\$54 Total: \$161,078  
*Prin. Invest.:* S RUNNING  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4923 UNIVERSITY OF MONTANA 6266**  
 ASSIMILATION OF SAR DERIVED PARAMETER MAPS INTO BIOMASS OVER BOREAS  
 STUDY AREA  
 06/23/1997 - 05/31/2000 FY00: \$27,744 Total: \$191,317  
*Prin. Invest.:* S W RUNNING  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER



## NASA'S UNIVERSITY PROGRAM

<b>NAG 5 6575</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6267</b>	<b>NCC 2 5397</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6275</b>
VEMAP PHASE II	11/17/1997 - 10/31/1999 FY00: -\$12	Total: \$169,788	AUTOMATED TESTING OF MATRIX MODELS	09/07/2000 - 02/28/2001 FY00: \$12,162	Total: \$12,162
Prin. Invest.: D W RUNNING	Tech. Officer: GSFC/A JANETOS	CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	Prin. Invest.: J HENRY	Tech. Officer: ARC/A PATTERSON-HINE, ARC/S LAU	CASE Category: 22 - COMPUTER SCIENCE
<b>NAG 5 6719</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6268</b>	<b>NCC 5 382</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6276</b>
RADAR BASED MEASURE OF INTERANNUAL VEGETATION PHEN OLOGY	FOR MONITORING GLOBAL CHANGE RESPONSES OF	Total: \$205,478	INTERNATIONAL EOS NATURAL RESOURCE TRAINING CENTER	02/19/1999 - 02/28/2001 FY00: \$1,831,000	Total: \$5,181,000
12/10/1997 - 08/31/2000 FY00: \$47,623	Prin. Invest.: S RUNNING	Tech. Officer: GSFC/D WICKLAND	Prin. Invest.: S W RUNNING	Tech. Officer: GSFC/D E WICKLAND	CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER					
<b>NAG 5 8599</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6269</b>	<b>NGT 5 30020</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6277</b>
THE IMPACT OF VEGETATION CHANGES IN THE SAHEL ON REGIONAL	SCALE HYDROLOGY	Total: \$91,874	DEVELOPING A GLOBAL PHENOLOGY MONITOR: A METHOD FO	RESPONSES TO CLIMATE CHANGE	Total: \$66,000
06/21/1999 - 06/30/2001 FY00: \$46,874	Prin. Invest.: S W RUNNING	Tech. Officer: GSFC/E G ENGMAN	10/14/1996 - 08/31/1999 FY00: \$0	Prin. Invest.: S RUNNING, NONE	Tech. Officer: GSFC/G ASRAR
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 9062</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6270</b>	<b>NGT 5 50225</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6278</b>
EARTH SCIENCE ENTERPRISE RESEARCH PROGRAM	02/15/2000 - 02/14/2003 FY00: \$100,000	Total: \$100,000	MODELING NOVEL FT-IR SPECTROSCOPIC MEASUREMENTS OF OXYGE-	NATEDHYDROCARBON LEVELS FROM BIO	Total: \$66,000
Prin. Invest.: J R KUGLIN	Tech. Officer: GSFC/N KHAZENIE	CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	09/29/1998 - 08/31/2001 FY00: \$22,000	Prin. Invest.: R J FIELD, MASON	Tech. Officer: HQ/M Y WEI
			CASE Category: 99 - MULTI INTERDISCIPL, OTHER		
<b>NAG 5 9332</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6271</b>	<b>NGT 5 50329</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6279</b>
DEVELOPMENT SPRAWL IMPACTS ON THE TERRESTRIAL CARBON	DYNAMICS OF THE UNITED STATES	Total: \$29,829	BIOGEOCHEMISTRY OF RECREATIONAL GRASSLANDS STUDENT: CRIS-	TINA MILES	Total: \$22,000
03/23/2000 - 04/30/2003 FY00: \$29,829	Prin. Invest.: R NEWMANI	Tech. Officer: GSFC/G GUTMAN	08/17/2000 - 08/31/2001 FY00: \$22,000	Prin. Invest.: S RUNNING	Tech. Officer: GSFC/M WEI
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 9333</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6272</b>	<b>NEBRASKA</b>		
MONITORING BOREAL LANDCOVER AND ECOSYSTEM DYNAMICS AT	REGIONAL SCALES USING INTEGRATED SPACEBORNE	Total: \$22,667	<b>NAG 2 1353</b>	<b>CREIGHTON UNIVERSITY</b>	<b>6280</b>
03/23/2000 - 04/30/2003 FY00: \$22,667	Prin. Invest.: J KIMBALL	Tech. Officer: GSFC/G GUTMAN	EFFECTS OF GRAVITY ON VESTIBULAR DEVELOPMENT IN MICE	07/22/1999 - 12/31/2000 FY00: \$193,317	Total: \$289,781
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			Prin. Invest.: B FRITSZCH	Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY	CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)
<b>NAG 9 1112</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6273</b>	<b>NAG 3 2219</b>	<b>UNIVERSITY OF NEBRASKA - LINCOLN</b>	<b>6281</b>
INSTITUTE FOR THE STUDY OF BIOMAKERS IN ASTROMATERIALS	05/11/1999 - 05/31/2001 FY00: \$12,000	Total: \$24,000	ATOMIC OXYGEN ULTRAVIOLET, AND THERMAL CYCLING EFFECTS ON	SPACE MATERIALS	Total: \$90,000
Prin. Invest.: N C HINMAN	Tech. Officer: JSC/E K GIBSON	CASE Category: 32 - GEOLOGICAL SCIENCE	12/28/1998 - 11/16/2000 FY00: \$45,000	Prin. Invest.: J A WOOLLAM	Tech. Officer: GRC/D A JAWORSKE
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 13 - PHYSICS		
<b>NAS 5 31388</b>	<b>UNIVERSITY OF MONTANA</b>	<b>6274</b>			
EOS MODIS INVESTIGATION FROM DR. STEVE RUNNING	01/07/1992 - 12/14/2001 FY00: \$504,000	Total: \$3,948,500			
Prin. Invest.: S W RUNNING	Tech. Officer: GSFC/H OSEROFF	CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER					

**NAG 5 3442 UNIVERSITY OF NEBRASKA - LINCOLN 6282**  
 CHARACTERIZATION OF LANDSAT-7 GEOMETRY AND RADIOMETER FOR  
 LAND COVER ANALYSES  
 10/07/1996 - 12/31/2000 FY00: \$22,432 Total: \$93,293  
*Prin. Invest.:* J W MERCHANT  
*Tech. Officer:* GSFC/D L WILLIAMS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4217 UNIVERSITY OF NEBRASKA - LINCOLN 6283**  
 CONSORTIUM FOR THE APPLICATION OF SPACE DATA TO ED  
 03/15/1997 - 12/31/2000 FY00: \$0 Total: \$1,449,859  
*Prin. Invest.:* D RUNDQUIST  
*Tech. Officer:* GSFC/D L KALE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 5024 UNIVERSITY OF NEBRASKA - LINCOLN 6284**  
 COORDINATION OF SURFACE GLACIOLOGICAL INVESTIGATIONS & FIELD  
 OPS: NASA OVERSNOWEXP, GREENLAND 94  
 05/25/1994 - 11/30/1999 FY00: \$0 Total: \$2,764,641  
*Prin. Invest.:* K C KUIVINAN  
*Tech. Officer:* GSFC/W B KRABILL  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6506 UNIVERSITY OF NEBRASKA - LINCOLN 6285**  
 MRK 42 AND MRK 957: TWO EXTREME NARROW-LINE STRONG FE II EMIT-  
 TING QUASARS - ASCA PROPOSAL A05  
 11/17/1997 - 10/31/2000 FY00: \$0 Total: \$17,800  
*Prin. Invest.:* M GASKELL  
*Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6669 UNIVERSITY OF NEBRASKA - LINCOLN 6286**  
 AN INITIATIVE TO CREATE AN ENVIRONMENTAL MONITORING LABORA-  
 TORY AT THE UNIVERSITY OF NEBRASKA-LINC  
 12/10/1997 - 12/14/1999 FY00: \$0 Total: \$357,000  
*Prin. Invest.:* D RUNDQUIST  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6990 UNIVERSITY OF NEBRASKA - LINCOLN 6287**  
 CHARACTERIZATION AND IMPROVEMENT OF EOS LAND PRODUCTS  
 USING MEASUREMENTS AT AMERIFLUX GRASSLAND AND  
 02/25/1998 - 02/28/2001 FY00: \$140,100 Total: \$440,620  
*Prin. Invest.:* E WALTER-SHEA, NONE  
*Tech. Officer:* GSFC/D C WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7876 UNIVERSITY OF NEBRASKA - LINCOLN 6288**  
 "COMPRESSION FOR REMOTE SENSING APPLICATIONS", CONTROL NO.  
 5-3427.  
 09/17/1998 - 01/31/2000 FY00: \$0 Total: \$60,000  
*Prin. Invest.:* K SAYOOD  
*Tech. Officer:* GSFC/P YEH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 8677 UNIVERSITY OF NEBRASKA - LINCOLN 6289**  
 "COMPRESSION FOR LAND USE DATA". GSFC CONTROL NO. 5-3491.  
 FUNDS FOR UNSOLICITED PROPOSAL W/UNIV NE  
 07/09/1999 - 09/30/2001 FY00: \$0 Total: \$50,131  
*Prin. Invest.:* K SAYOOD  
*Tech. Officer:* GSFC/P YEH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 9834 UNIVERSITY OF NEBRASKA - LINCOLN 6290**  
 ROBUST COMPRESSION FOR LAND USE DATA  
 07/28/2000 - 09/30/2001 FY00: \$80,546 Total: \$60,546  
*Prin. Invest.:* K SAYOOD  
*Tech. Officer:* GSFC/P YEH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 9 1137 UNIVERSITY OF NEBRASKA - LINCOLN 6291**  
 A PROTOTYPE MARS SURFACE MOBILITY VEHICLE  
 08/04/1999 - 08/31/2000 FY00: \$0 Total: \$5,000  
*Prin. Invest.:* S FARRITOR  
*Tech. Officer:* JSC/J JOCHIM  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 2 5304 UNIVERSITY OF NEBRASKA - LINCOLN 6292**  
 TRANSPORT IN QUANTUM STRUCTURES: QUASI TWO DIMENSIONAL  
 DEVICES  
 01/11/1999 - 01/31/2001 FY00: \$63,558 Total: \$126,973  
*Prin. Invest.:* S BANDYOPADHYAY  
*Tech. Officer:* ARC/M MEYYAPPAN  
*CASE Category:* 13 - PHYSICS

**NCC 5 169 UNIVERSITY OF NEBRASKA - LINCOLN 6293**  
 THE NEBRASKA INITIATIVE FOR AEROSPACE RESEARCH AND DEVELOP-  
 MENT  
 12/05/1996 - 11/14/2000 FY00: \$500,000 Total: \$2,000,000  
*Prin. Invest.:* B D BOWEN  
*Tech. Officer:* HQ/J DASCH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 430 UNIVERSITY OF NEBRASKA - LINCOLN 6294**  
 "AMERICA'S FARM" A PROTOTYPE FOR OTHER NATIONAL CYBER-EDUCA-  
 TIONAL SITES IN RESPONSE TO NASA COOPERATION  
 09/20/1999 - 09/30/2001 FY00: \$127,488 Total: \$297,488  
*Prin. Invest.:* D C RUNDQUIST  
*Tech. Officer:* GSFC/R E GABRYS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC13 98003 UNIVERSITY OF NEBRASKA - LINCOLN 6295**  
 AN INITIATIVE TO CREATE AN AFFILIATED RESEARCH CENTER PROGRAM  
 08/17/1998 - 08/16/2001 FY00: \$150,000 Total: \$349,607  
*Prin. Invest.:* RUNDQUIST  
*Tech. Officer:* SSC/H CARR  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30175 UNIVERSITY OF NEBRASKA - LINCOLN 6296**  
 INTERANNUAL VARIABILITY IN SNOW MELT & ASSOCIATED ATMOSPHERIC  
 CONDITIONS OVER THE MARINE CRYOSPHERE  
 01/13/1999 - 12/31/2000 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* M ANDERSON  
*Tech. Officer:* GSFC/S GOGINENI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

## NASA'S UNIVERSITY PROGRAM

NEVADA

**NGT 5 30358 UNIVERSITY OF NEBRASKA - LINCOLN 6297**  
 LANDFORM EVOLUTION OF THE LOWER MISSISSIPPI RIVER VALLEY IN  
 RESPONSE TO DEGLACIATION/STUDENT: TAMMY  
 08/23/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: M BLUM  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50098 UNIVERSITY OF NEBRASKA - LINCOLN 6298**  
 LARGE SCALE DISTRIBUTED SYSTEMS FOR COMPUTER VISIO  
 09/06/1997 - 08/31/1998 FY00: \$0 Total: \$22,000  
 Prin. Invest.: SAMAL  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1274 UNIVERSITY OF NEBRASKA AT KEARNEY 6299**  
 JOVE RESEARCH STUDY  
 01/28/1997 - 08/31/2000 FY00: \$0 Total: \$83,116  
 Prin. Invest.: M GLASSER, D  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 401 UNIVERSITY OF NEBRASKA-OMAHA 6300**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 - 05/14/2001 FY00: \$225,000 Total: \$450,000  
 Prin. Invest.: B BROWN  
 Tech. Officer: HQ/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40037 UNIVERSITY OF NEBRASKA-OMAHA 6301**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 02/13/1997 - 02/28/2001 FY00: \$277,650 Total: \$1,040,150  
 Prin. Invest.: B D BOWEN  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## NEVADA

**NAG 1 1845 UNIV. OF NEVADA - DESERT RES. INST. 6302**  
 CLOUD CONDENSATION NUCLEI IN FIRE III MY 1/3  
 06/04/1996 - 06/03/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: J G HUDSON  
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2046 UNIV. OF NEVADA - DESERT RES. INST. 6303**  
 MICROPHYSICS AND RADIATIVE PROPERTIES OF CIRrus: INSTRUMEN-  
 TATION AND ANALYSIS/PREVIOUS # NAG-1-1707  
 04/01/1998 - 05/03/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: J HALLETT  
 Prin. Invest.: NONE  
 Tech. Officer: LARC/D S MCDOUGAL, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2183 UNIV. OF NEVADA - DESERT RES. INST. 6304**  
 CLOUD CONDENSATION NUCLEI FIRE III MY 1/2  
 04/19/1999 - 06/03/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: J G HUDSON  
 Tech. Officer: LARC/V E DELNORE, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1104 UNIV. OF NEVADA - DESERT RES. INST. 6305**  
 ANALYTICAL TOOLS FOR CLOUDSCOPE ICE MEASUREMENT  
 01/21/1997 - 12/31/1998 FY00: \$0 Total: \$0  
 Prin. Invest.: W P ARNOTT, J HALLETT  
 Tech. Officer: ARC/E P CONDON, ARC/S S WEGENER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7870 UNIV. OF NEVADA - DESERT RES. INST. 6306**  
 INTEGRATING MODELING AND REMOTE SENSING FOR MONITO RING  
 POTENTIAL RESPONSES TO CLIMATE CHANGE  
 01/20/1999 - 12/31/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: G L DANA  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7973 UNIV. OF NEVADA - DESERT RES. INST. 6307**  
 IN SITU MICROPHYSICAL OBSERVATIONS IN SUPPORT OF T HE TRMM/  
 KWAJEX FIELD CAMPAIGN  
 01/03/1999 - 12/31/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: J HALALET  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 40038 UNIV. OF NEVADA - DESERT RES. INST. 6308**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 01/24/1997 - 02/28/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: J V TARANIK  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3994 UNIVERSITY OF NEVADA - LAS VEGAS 6309**  
 EFFICIENT TRANSMISSION AND MANIPULATION OF SCIENTI  
 03/06/1997 - 02/28/2001 FY00: \$0 Total: \$261,642  
 Prin. Invest.: D LATIFI  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 6727 UNIVERSITY OF NEVADA - LAS VEGAS 6310**  
 LABORATORY STUDIES OF THERMAL ENERGY CHARGE TRANSFER OF  
 CARBON, IRON, SULPHUR, AND NITROGEN IONS IN  
 12/11/1997 - 12/31/2000 FY00: \$94,200 Total: \$210,200  
 Prin. Invest.: V H KWONG  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9489 UNIVERSITY OF NEVADA - LAS VEGAS 6311**  
 DEVELOPMENT OF THE CONTENT-BASED IMAGE QUERYING TO OLS:  
 TOWARD ADVANCED DATABASES FOR ASTRONOMICAL  
 04/17/2000 - 04/14/2001 FY00: \$80,000 Total: \$80,000  
 Prin. Invest.: S LATIFI  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 5 31231 UNIVERSITY OF NEVADA - LAS VEGAS 6312**  
 STIS CO-INVESTIGATOR SUPPORT  
 08/30/1991 - 08/30/2001 FY00: \$204,000 Total: \$814,301  
 Prin. Invest.: D WEISTROP  
 Tech. Officer: GSFC/D VITAGLIANO  
 CASE Category: 11 - ASTRONOMY

<b>NAG 5 4471</b>	<b>UNIVERSITY OF NEVADA - RENO</b>	<b>6313</b>	
MARTIAN PALEOLAKE SEDIMENTS AND TERRESTRIAL ANALOG CE-COVERED LAKES			
06/17/1997 - 12/31/1999	FY00: \$0	Total: \$215,636	
Prin. Invest.: D A WHARTON, JR.			
Tech. Officer: GSFC/M MEYER			
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)			
<b>NAG 5 6881</b>	<b>UNIVERSITY OF NEVADA - RENO</b>	<b>6314</b>	
NUMERICAL GEOMECHANICS STUDIES OF PLANETARY FAULTING			
02/27/1998 - 09/30/2000	FY00: \$52,915	Total: \$164,302	
Prin. Invest.: R SCHULTZ			
Tech. Officer: GSFC/P ROGERS			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8267</b>	<b>UNIVERSITY OF NEVADA - RENO</b>	<b>6315</b>	
GEOMETRY AND MECHANICS OF FAULTING ON MARS			
02/24/1999 - 06/30/2001	FY00: \$90,000	Total: \$184,000	
Prin. Invest.: R SCHULTZ			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 9001</b>	<b>UNIVERSITY OF NEVADA - RENO</b>	<b>6316</b>	
COMPREHENSIVE STRUCTURAL MODEL FOR PLANETARY WRINKLE RIDGES			
02/03/2000 - 06/30/2001	FY00: \$36,100	Total: \$36,100	
Prin. Invest.: R A SCHULTZ			
Tech. Officer: GSFC/J GRANT			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 5 9127</b>	<b>UNIVERSITY OF NEVADA - RENO</b>	<b>6317</b>	
CONCURRENT ANALYSIS OF MULTI- & HYPERSPECTRAL DATA SETS OF ANTARCTICA			
02/25/2000 - 02/28/2001	FY00: \$31,900	Total: \$31,900	
Prin. Invest.: W M CALVIN			
Tech. Officer: GSFC/E LINDSTROM			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 5 9298</b>	<b>UNIVERSITY OF NEVADA - RENO</b>	<b>6318</b>	
ALTERATION MINERALOGY OF MARS: SPECTROSCOPIC ANALYSIS AND INTERPRETATION			
04/27/2000 - 04/30/2001	FY00: \$55,100	Total: \$55,100	
Prin. Invest.: W CALVIN			
Tech. Officer: GSFC/J A GRANT			
CASE Category: 32 - GEOLOGICAL SCIENCE			
<b>NAG 5 9498</b>	<b>UNIVERSITY OF NEVADA - RENO</b>	<b>6319</b>	
GLOBAL ASSESSMENT OF VOLCANIC DEBRIS FLOW HAZARDS FROM SPACE: EVALUATION OF NEW MULTISPECTRAL AND HYPERSPECTRAL DATA SETS			
04/27/2000 - 12/31/2000	FY00: \$38,346	Total: \$38,346	
Prin. Invest.: R J WATTERS			
Tech. Officer: GSFC/S G UNGAR			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NCC 3 750</b>	<b>UNIVERSITY OF NEVADA - RENO</b>	<b>6320</b>	
ACOUSTIC TOMOGRAPHY FOR JET ENGINES/TURBINES: PROOF OF CONCEPT			
12/15/1999 - 12/14/2000	FY00: \$39,827	Total: \$39,827	
Prin. Invest.: J A KLEPPE			
Tech. Officer: GRC/G FRALICK			
CASE Category: 46 - MECHANICAL ENGR			
<b>NCC 5 397</b>	<b>UNIVERSITY OF NEVADA SYSTEM ADMIN.</b>	<b>6321</b>	
NASA EPSCOR: PREPARATORY GRANT PROPOSAL			
05/24/1999 - 06/30/2001	FY00: \$225,000	Total: \$450,000	
Prin. Invest.: J TARANKI			
Tech. Officer: GSFC/D DETROYE			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NEW HAMPSHIRE</b>			
<b>NAG 2 1420</b>	<b>DARTMOUTH COLLEGE</b>	<b>6322</b>	
TRANSCRIPTIONAL REGULATIONS & EVOLUTION OF BILATERAL BODY PLANS			
07/13/2000 - 07/31/2001	FY00: \$68,160	Total: \$68,160	
Prin. Invest.: K PETERSON, E H DAVIDSON			
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY			
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)			
<b>NAG 5 1098</b>	<b>DARTMOUTH COLLEGE</b>	<b>6323</b>	
THEORETICAL STUDY GLOBAL GEOSPACE SYSTEM			
11/01/1988 - 03/31/2000	FY00: \$0	Total: \$1,714,427	
Prin. Invest.: M K HUDSON			
Tech. Officer: GSFC/S A CURTIS, GSFC/M H ACUNA			
CASE Category: 13 - PHYSICS			
<b>NAG 5 3212</b>	<b>DARTMOUTH COLLEGE</b>	<b>6324</b>	
A PRECISE POSITION FOR RU0042+32			
04/18/1996 - 10/31/1999	FY00: \$0	Total: \$1,993	
Prin. Invest.: J THORSTENSEN			
Tech. Officer: GSFC/R PETRE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 3498</b>	<b>DARTMOUTH COLLEGE</b>	<b>6325</b>	
RIVER FLOODING AND GLOBAL ENVIRONMENTAL CHANGE: A CASE STUDY			
12/02/1996 - 02/14/2001	FY00: \$0	Total: \$824,151	
Prin. Invest.: R BRACKENRIDGE			
Tech. Officer: GSFC/M BALTUCK			
CASE Category: 32 - GEOLOGICAL SCIENCE			
<b>NAG 5 4178</b>	<b>DARTMOUTH COLLEGE</b>	<b>6326</b>	
GLOBAL FLOOD MONITORING AND ANALYSIS			
03/19/1997 - 09/30/2000	FY00: \$16,770	Total: \$171,562	
Prin. Invest.: G BRACKENRIDGE			
Tech. Officer: GSFC/R H THOMAS			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 5 4529</b>	<b>DARTMOUTH COLLEGE</b>	<b>6327</b>	
DISPERSIVE ALFVEN DYNAMICS OF THE MAGNETOSPHERE-IO			
05/09/1997 - 08/31/2001	FY00: \$0	Total: \$251,535	
Prin. Invest.: D LOTKO			
Tech. Officer: GSFC/M M MELLOTT			
CASE Category: 13 - PHYSICS			
<b>NAG 5 4463</b>	<b>DARTMOUTH COLLEGE</b>	<b>6328</b>	
DATA ASSIMILATIVE ANALYSIS OF THE GGS DATA SET USING			
06/05/1997 - 05/31/1999	FY00: \$0	Total: \$71,500	
Prin. Invest.: D G LYON			
Tech. Officer: GSFC/D EVANS			
CASE Category: 13 - PHYSICS			

**NAG 5 5238 DARTMOUTH COLLEGE 6329**  
 SOUNDING OF THE ION ENERGIZATION REGION: RESOLVING AMBIGUITIES (SIERRA)  
 05/11/1999 - 05/10/2002 FY00: \$58,000 Total: \$117,955  
 Prin. Invest.: J W LABELLE  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5239 DARTMOUTH COLLEGE 6330**  
 FIRST YEAR FUNDING FOR "ROCKET AURORAL CORRELATOR EXPERIMENT (RACE) PI DR. JAMES LABELLE  
 05/19/1999 - 05/18/2002 FY00: \$95,000 Total: \$210,886  
 Prin. Invest.: J W LABELLE  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 6268 DARTMOUTH COLLEGE 6331**  
 AUTOMATED ANALYSIS OF REMOTELY-SENSED 2D MAGNETOPA  
 08/21/1997 - 07/31/2000 FY00: \$0 Total: \$128,879  
 Prin. Invest.: D O SONNERUP  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 6427 DARTMOUTH COLLEGE 6332**  
 MAGNETIC STORM EFFECTS ON PARTICLE ENERGIZATION IN THE MAGNETOSPHERE  
 10/07/1997 - 09/30/1999 FY00: \$0 Total: \$46,000  
 Prin. Invest.: M HUDSON  
 Tech. Officer: GSFC/J BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 7185 DARTMOUTH COLLEGE 6333**  
 APPROXIMATELY TWO-DIMENSIONAL COHERENT STRUCTURES IN SPACE PLASMAS: THE INVERSE PROBLEM  
 03/25/1998 - 03/31/2001 FY00: \$71,211 Total: \$213,222  
 Prin. Invest.: B U SONNERUP  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7442 DARTMOUTH COLLEGE 6334**  
 A THEORETICAL STUDY OF THE GLOBAL GEOSPACE SYSTEM  
 06/02/1998 - 09/30/2001 FY00: \$135,630 Total: \$515,630  
 Prin. Invest.: M HUDSON  
 Tech. Officer: GSFC/S CURTIS  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7689 DARTMOUTH COLLEGE 6335**  
 NONADIABATIC CHANGES IN RADIATION BELT POPULATIONS  
 09/14/1998 - 09/30/2001 FY00: \$71,592 Total: \$215,592  
 Prin. Invest.: M K HUDSON  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7802 DARTMOUTH COLLEGE 6336**  
 THE ASSIMILATION OF SATELLITE DATA INTO GLOBAL MHD SIMULATIONS (SEC GI PROGRAM) NRA-98-03-SEC-114  
 11/09/1998 - 12/31/1999 FY00: \$0 Total: \$70,000  
 Prin. Invest.: J G LYON  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 7803 DARTMOUTH COLLEGE 6337**  
 MULTIPPOINT, MULTI-INSTRUMENT STUDY OF AURORAL ALFVENIC PROCESSES (SEC GI PROGRAM) NRA-98-03-S  
 11/09/1998 - 03/31/2001 FY00: \$94,800 Total: \$185,120  
 Prin. Invest.: W LOTKO  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 8441 DARTMOUTH COLLEGE 6338**  
 RESEARCH: "ULTRA LOW FREQUENCY MAGNETOSPHERIC PHYSICS...": FIRST YEAR OF THREE YEAR FUNDING CYCLE. P  
 04/08/1999 - 04/14/2001 FY00: \$324,048 Total: \$634,048  
 Prin. Invest.: W LOTKO  
 Tech. Officer: GSFC/J M GREBOWSKY  
 CASE Category: 13 - PHYSICS

**NAG 5 9225 DARTMOUTH COLLEGE 6339**  
 THE FORMATION OF THE MILKY WAY AND ITS SATELLITE GALAXIES (LTS A 99)  
 03/15/2000 - 03/14/2001 FY00: \$59,894 Total: \$59,894  
 Prin. Invest.: B CHABOYER  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9470 DARTMOUTH COLLEGE 6340**  
 RIVER FLOODING AND GLOBAL ENVIRONMENTAL CHANGE: A MULTI-SENSOR APPROACH  
 04/14/2000 - 04/30/2001 FY00: \$132,532 Total: \$132,532  
 Prin. Invest.: R BRAKENRIDGE, NONE  
 Tech. Officer: GSFC/P HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1590 DARTMOUTH COLLEGE 6341**  
 R/S IN SITU OPTICAL WAVEGUIDES FOR MONITORING AND MODIFYING PROTEIN CRYSTAL GROWTH  
 01/28/1999 - 09/30/2002 FY00: \$116,000 Total: \$196,999  
 Prin. Invest.: U J GIBSON  
 Tech. Officer: MSFC/H K HIGGINBOTTAM, MSFC/B GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1088 DARTMOUTH COLLEGE 6342**  
 LIFE SCIENCES DATA ARCHIVE SCIENTIFIC SUPPORT  
 03/15/1999 - 10/01/2000 FY00: \$149,141 Total: \$216,729  
 Prin. Invest.: J BUCKEY  
 Tech. Officer: JSC/D BELL  
 CASE Category: 56 - MEDICL

**NAG13 00041 DARTMOUTH COLLEGE 6343**  
 LIMITED AREA OPERATIONAL COASTAL OCEAN MODELS SAME  
 09/06/2000 - 09/05/2001 FY00: \$234,724 Total: \$234,724  
 Prin. Invest.: D LYNCH  
 Tech. Officer: SSC/R MILLER  
 CASE Category: 33 - OCEANOGRAPHY

**NAS 9 19572 DARTMOUTH COLLEGE 6344**  
 NEUROLAB MISSION SUPPORT SERVICES  
 09/12/1996 - 12/31/1998 FY00: -\$15,355 Total: \$405,801  
 Prin. Invest.: J C BUCKEY  
 Tech. Officer: JSC/L K NEWKIRK  
 CASE Category: 59 - LIFE SCIENCE, OTHER

<b>NGT 5 95 DARTMOUTH COLLEGE 6345</b> STORM-TIME RADIATION BELT DYNAMICS 07/23/1999 - 07/31/2000 FY00: \$0 Total: \$22,000 <i>Prin. Invest.:</i> M K HUDSON <i>Tech. Officer:</i> GSFC/L ZANETTI CASE Category: 11 - ASTRONOMY	<b>NAG 5 2289 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6352</b> MAGNITUDE AND CONTROL OF TRACT GAS EXCHANGE IN BOR EAL OCESYSTEMS 06/14/1993 - 07/14/1999 FY00: \$0 Total: \$494,589 <i>Prin. Invest.:</i> P M CRILL <i>Tech. Officer:</i> GSFC/F G HALL, GSFC/P SELLERS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NGT 5 50093 DARTMOUTH COLLEGE 6346</b> SOUNDING ROCKET BASED INVESTIGATIONS OF AURORAL HI GRADUATE STUDENT RESEARCHERS PROGRAM 08/21/1997 - 06/30/2000 FY00: \$0 Total: \$44,000 <i>Prin. Invest.:</i> LABELLE <i>Tech. Officer:</i> HQ/A NURRIDDIN CASE Category: 11 - ASTRONOMY	<b>NAG 5 2420 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6353</b> USE OF EGRET HIGH ENERGY CAPABILITY TO INVESTIGATE ENERGETIC SOLAR FLARE PROCESSES 11/06/1993 - 11/14/1998 FY00: -\$649 Total: \$76,647 <i>Prin. Invest.:</i> E CHUPP, D L BERTSCH <i>Tech. Officer:</i> GSFC/J P NORRIS, GSFC/N WHITE CASE Category: 11 - ASTRONOMY
<b>NGT 5 50153 DARTMOUTH COLLEGE 6347</b> SIMULATION OF THE CAVITY MODE STRUCTURE OF THE INN DIPOLE GEOMETRY/JERRY GOLDSTEIN 09/11/1997 - 09/30/2000 FY00: \$0 Total: \$44,000 <i>Prin. Invest.:</i> M HUDSON, NONE <i>Tech. Officer:</i> HQ/A NURRIDDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 5 3527 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6354</b> ASSESSING THE EFFECTS OF HISTORICAL LAND USE ON FO RESPONSE TO CLIMATE CHANGE AND CO2: A REMOTE SENS 11/18/1996 - 11/14/2000 FY00: \$0 Total: \$551,690 <i>Prin. Invest.:</i> M MARTIN <i>Tech. Officer:</i> GSFC/D E WICKLAND CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NCC 5 384 SAINT ANSELM COLLEGE 6348</b> GROUND-BASED TESTING OF A PROTOTYPE HOLOGRAPHIC AT MOSPHERIC SCANNER FOR ENVIRONMENTAL REMOTESENSIN 03/05/1999 - 08/30/2001 FY00: \$15,500 Total: \$34,700 <i>Prin. Invest.:</i> D GUERRA <i>Tech. Officer:</i> GSFC/A J NEGRI CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 3747 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6355</b> MAXWELL, FARADAY, AND VLASOV: 3 DIRECT MEASUREMENT 03/10/1997 - 08/31/1999 FY00: -\$159 Total: \$60,713 <i>Prin. Invest.:</i> D A LYNCH <i>Tech. Officer:</i> GSFC/R HOWARD CASE Category: 13 - PHYSICS
<b>NAG 1 1761 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6349</b> MEASUREMENTS OF ACIDIC GASES AND AEROSOL SPECIES A BOARD THE NASA DC-8 AIRCRAFT DURING PEM-TROPICS 09/29/1995 - 09/30/1998 FY00: -\$55 Total: \$357,298 <i>Prin. Invest.:</i> D W TALBOT, D E DIBB <i>Tech. Officer:</i> LARC/J M HOELL, JR., LARC/R J BENDURA CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4458 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6356</b> MAGNETOTAIL-IONOSPHERE COUPLING 05/14/1997 - 06/30/2000 FY00: \$0 Total: \$63,900 <i>Prin. Invest.:</i> D L KAUFMANN <i>Tech. Officer:</i> GSFC/J BOHLIN CASE Category: 13 - PHYSICS
<b>NAG 2 1101 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6350</b> MEASUREMNT OF NITRIC & AEROSOL SPECIES ABOARD THE NASA DC-8 AIRCRAFT DURING THE SASS OZONE &..... 01/13/1997 - 12/31/1998 FY00: -\$125 Total: \$335,778 <i>Prin. Invest.:</i> R TALBOT <i>Tech. Officer:</i> ARC/E P CONDON, ARC/S S WEGENER CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4616 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6357</b> HUMAN DIMENSIONS OF DEFORESTATION & REGROWTH IN TH INTE- GRATING DATA FROM SATELLITES, DEMOGRAPHIC CENS 05/21/1997 - 05/14/1999 FY00: -\$185 Total: \$252,815 <i>Prin. Invest.:</i> D SKOLE <i>Tech. Officer:</i> GSFC/N MAYNARD CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 1479 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6351</b> THEORETICAL STUDIES ON THE CHROMOSPHERE, CORONA, AND SOLAR WIND 11/28/1990 - 09/30/1999 FY00: \$0 Total: \$2,546,230 <i>Prin. Invest.:</i> J V HOLLWEG, M A LEO <i>Tech. Officer:</i> GSFC/T J BIRMINGHAM CASE Category: 13 - PHYSICS	<b>NAG 5 4695 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6358</b> TRANSPORT OF ENERGETIC IONS IN THE RING CURRENT DU S 06/17/1997 - 11/14/1999 FY00: \$0 Total: \$121,000 <i>Prin. Invest.:</i> D M KISTLER <i>Tech. Officer:</i> GSFC/D EVANS CASE Category: 13 - PHYSICS
<b>NAG 5 4785 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6359</b> AN INTEGRATED SYSTEM FOR WATER BUDGET CLOSURE OVER MASS: A TRMM VALIDATION EFFORT 07/03/1997 - 12/31/2000 FY00: \$61,500 Total: \$234,500 <i>Prin. Invest.:</i> C VOROSMARTY <i>Tech. Officer:</i> GSFC/O W THIELE CASE Category: 31 - ATMOSPHERIC SCIENCE	

**NAG 5 4856 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6360**  
 MAGNETIC RECONNECTION IN SOLAR FLARES  
 07/15/1997 - 05/14/2000 FY00: \$0 Total: \$254,000  
 Prin. Invest.: D G FORBES  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5033 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6361**  
 AURORAL TURBULENCE II FIRST YEAR OF A THREE-YEAR EFFORT IN BASIC  
 04/12/1995 - 04/30/2000 FY00: \$0 Total: \$514,665  
 Prin. Invest.: R B TORBERT  
 Tech. Officer: GSFC/R H PLESS  
 CASE Category: 13 - PHYSICS

**NAG 5 5040 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6362**  
 DUST DETECTOR  
 07/27/1995 - 06/30/1999 FY00: \$0 Total: \$151,640  
 Prin. Invest.: K A LYNCH  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5057 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6363**  
 A CO-INVESTIGATOR PROPOSAL FOR CORNELL UNIVERSITY CAPER  
 06/25/1996 - 05/31/2001 FY00: \$0 Total: \$409,705  
 Prin. Invest.: R ARNOLDY  
 Tech. Officer: GSFC/L W GURKIN  
 CASE Category: 13 - PHYSICS

**NAG 5 5117 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6364**  
 THE TIGRE INSTRUMENT FOR INTERMEDIATE-ENERGY GAMMA-RAY ASGTRONOMY FOR 0.3 TO 100MEV  
 04/18/1997 - 11/30/1999 FY00: \$0 Total: \$150,982  
 Prin. Invest.: J RYAN  
 Tech. Officer: GSFC/H NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5124 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6365**  
 ENSTROPHY - FILAMENTATION OF AURORAL CURRENTS  
 03/10/1997 - 01/31/2001 FY00: \$0 Total: \$389,920  
 Prin. Invest.: K LYNCH  
 Tech. Officer: GSFC/B FLOWERS  
 CASE Category: 13 - PHYSICS

**NAG 5 5147 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6366**  
 MINUTE OF ARC RESOLUTION GAMMA-RAY IMAGING EXPERIMENT (MARGIE)  
 07/02/1997 - 12/31/2000 FY00: \$50,000 Total: \$150,000  
 Prin. Invest.: J RYAN  
 Tech. Officer: GSFC/H NEEDLEMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 5192 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6367**  
 MONITORING INITIAL STAGES OF FOREST RECOVERY IN T CZECH REPUBLIC  
 07/18/1997 - 07/31/2000 FY00: \$51,892 Total: \$444,069  
 Prin. Invest.: B ROCK  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 5212 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6368**  
 ULDB COMPTON TELESCOPE MISSION  
 09/22/1998 - 12/31/2001 FY00: \$31,040 Total: \$60,000  
 Prin. Invest.: J M RYAN  
 Tech. Officer: WFF/B A MERRITT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5234 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6369**  
 DUST DARTS PI DR. KRISTINA LYNCH  
 02/12/1999 - 03/28/2002 FY00: \$145,000 Total: \$215,195  
 Prin. Invest.: K LYNCH  
 Tech. Officer: GSFC/W JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5237 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6370**  
 SOUNDING OF THE ION ENERGIZATION REGION: RESOLVING AMBIGUITIES (SIERRA)  
 05/11/1999 - 05/10/2002 FY00: \$151,100 Total: \$269,845  
 Prin. Invest.: R L ARNOLDY  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 6115 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6371**  
 THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION AND TERRESTRIAL  
 07/28/1997 - 07/31/2000 FY00: \$0 Total: \$107,770  
 Prin. Invest.: B BRASWELL  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6137 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6372**  
 TRANSFER FUNDS TO UNIVERSITY OF NEW HAMPSHIRE IN S ENTITLED: CHANGES IN BIOGEOCHEMICAL CYCLES  
 08/11/1997 - 05/31/2001 FY00: \$1,577,000 Total: \$6,253,073  
 Prin. Invest.: B MOORE, III  
 Tech. Officer: GSFC/A C JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6289 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6373**  
 DEVELOPMENT OF A PARTICLE BACKSCATTERING ALGORITHM CONCURRENT SHIP MEASUREMENTS, AND GLOBAL BIOGEOCH  
 09/10/1997 - 08/31/2001 FY00: \$84,601 Total: \$346,375  
 Prin. Invest.: W S BROWN, NONE  
 Tech. Officer: GSFC/E A LUNDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6452 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6374**  
 SATELLITE-BASED SYSTEMS FOR MONITORING BIOGEOCHEMICAL FLUXES BETWEEN THECONTINENTAL LAND MASS AND C  
 11/04/1997 - 09/30/2000 FY00: \$150,000 Total: \$552,982  
 Prin. Invest.: C VOROSMARTY  
 Tech. Officer: GSFC/J A YODER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6453 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6375**  
 ATMOSPHERIC IMPACTS OF AGRICULTURE: INTEGRATION OF REMOTE SENSING AND BIOGEOCHEMICAL MODELS FOR T  
 11/18/1997 - 12/31/2000 FY00: \$101,620 Total: \$336,476  
 Prin. Invest.: C LI  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6623 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6376**  
 RADAR-BASED MEASURE OF INTERANNUAL VEGETATION PHEN OLOGY  
 FOR MONITORING GLOBAL CHANGES RESPONSES OF  
 11/19/1997 - 11/30/2000 FY00: \$28,621 Total: \$83,227  
*Prin. Invest.:* S FROLKING, NONE  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6793 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6377**  
 LIFE, FROM LOCAL ORIGINS TO GLOBAL PERSISTENCE  
 02/18/1998 - 12/31/1998 FY00: -\$910 Total: \$104,252  
*Prin. Invest.:* B MOORE  
*Tech. Officer:* GSFC/M MEYER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6860 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6378**  
 WIND/SWE CONTINUED INVESTIGATIONS  
 02/17/1998 - 01/14/2001 FY00: \$100,000 Total: \$459,155  
*Prin. Invest.:* R TORBERT  
*Tech. Officer:* GSFC/K OGILVIE  
*CASE Category:* 13 - PHYSICS

**NAG 5 6862 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6379**  
 ESTIMATION OF SUPERNOVA RATES FROM COMPTON OBSERVATIONS  
 02/17/1998 - 01/31/1999 FY00: -\$250 Total: \$9,750  
*Prin. Invest.:* D J MORRIS  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6864 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6380**  
 POINTED OBSERVATIONS AND RE-ANALYSIS OF EXISTING COMPTON DATA  
 ON PSRB1509-58; COMPTON RAPID BUR  
 02/17/1998 - 01/31/1999 FY00: -\$93 Total: \$14,907  
*Prin. Invest.:* A CONNORS  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6925 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6381**  
 GRANT  
 02/04/1998 - 01/31/2001 FY00: \$0 Total: \$389,734  
*Prin. Invest.:* L M KISTLER  
*Tech. Officer:* GSFC/M HESSE  
*CASE Category:* 13 - PHYSICS

**NAG 5 6935 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6382**  
 GRANT  
 02/04/1998 - 01/31/2001 FY00: \$0 Total: \$379,492  
*Prin. Invest.:* R B TORBERT  
*Tech. Officer:* GSFC/M HESSE  
*CASE Category:* 13 - PHYSICS

**NAG 5 6992 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6383**  
 BROAD-BAND MEASUREMENTS OF CEN X-3 WITH XTE AND CGRORXTE-  
 PROPOSAL  
 02/06/1998 - 02/14/2000 FY00: \$0 Total: \$15,000  
*Prin. Invest.:* T VESTRAND  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7052 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6384**  
 NEW TECHNOLOGY CDZNT DETECTORS FOR HIGH-ENERGY FLARE  
 SPECTROSCOPY: THEROOMTEMPERATURE SEMICONDUCTOR  
 03/16/1998 - 06/30/2000 FY00: \$0 Total: \$149,000  
*Prin. Invest.:* D VESTRANK  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7095 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6385**  
 SCALING PEATLAND CO<sub>2</sub> AND CH<sub>4</sub> FLUXES FROM CHAMBERS TO THE  
 BOREAS NORTH-ERN AND SOUTHERN STUDY AREAS  
 05/21/1998 - 04/30/2001 FY00: \$47,550 Total: \$218,362  
*Prin. Invest.:* S FROLKING  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7097 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6386**  
 STUDIES OF INTERSTELLAR PICKUP IONS IN THE SOLAR WIND  
 06/05/1998 - 10/31/2000 FY00: \$70,600 Total: \$220,600  
*Prin. Invest.:* P A ISENBERG, NONE  
*Tech. Officer:* GSFC/J LUNG  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7294 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6387**  
 SOLPOL - A SOLAR POLARIMETER FOR HARD X-RAYS AND GAMMA RAYS  
 04/15/1998 - 10/14/1999 FY00: \$0 Total: \$118,000  
*Prin. Invest.:* M L MCCONNELL  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7368 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6388**  
 STUDY OF RING CURRENT DYNAMICS DURING GEOMAGNETIC STORMS  
 05/06/1998 - 05/31/2000 FY00: \$0 Total: \$14,000  
*Prin. Invest.:* V K JORDANOVA  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7601 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6389**  
 DEVELOPMENT OF SPACE-BASED TECHNIQUES FOR MEASURING  
 07/24/1998 - 07/14/2000 FY00: \$0 Total: \$89,532  
*Prin. Invest.:* L D DINGMAN  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7631 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6390**  
 QUANTIFYING THE ATMOSPHERIC IMPACTS OF PADDY RICE AGRICULTURE  
 IN CHINA  
 08/10/1998 - 01/31/2001 FY00: \$450,000 Total: \$979,670  
*Prin. Invest.:* C LI  
*Tech. Officer:* GSFC/A C JANETOS  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7745 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6391**  
 BROAD-BAND GAMMA-RAY SPECTRA OF CYGNUS X-1  
 11/16/1998 - 11/30/1999 FY00: \$0 Total: \$15,000  
*Prin. Invest.:* M L MCCONNELL  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY



**NAG 5 7792 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6392**  
 ION ACCELERATION AND TRANSPORT IN IMPULSIVE AND GRADUAL  
 SOLAR FLARES  
 12/14/1998 - 12/31/2000 FY00: \$55,615 Total: \$108,581  
 Prin. Invest.: D A LEE  
 Tech. Officer: GSFC/D C LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7798 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6393**  
 SMALL SCALE STRUCTURE OF AURORAL ELECTRIC CURRENTS - A  
 GUEST INVESTIGATOR PROPOSAL TO THE FAST  
 12/15/1998 - 12/31/2000 FY00: \$85,785 Total: \$168,425  
 Prin. Invest.: D A LYNCH  
 Tech. Officer: GSFC/L ZANETTI  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7804 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6394**  
 ELECTRIC FIELDS AND RING CURRENT ENERGIZATION (SEC GI  
 PROGRAM)  
 11/06/1998 - 12/31/2000 FY00: \$74,663 Total: \$146,476  
 Prin. Invest.: V K JORDANOVA  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 7829 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6395**  
 COMPTON STUDIES OF GAMMA-RAY BURSTS AT MEV ENERGIES  
 11/17/1998 - 11/30/1999 FY00: -\$2 Total: \$9,998  
 Prin. Invest.: M L MCCONNELL  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7891 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6396**  
 CGRO-COMPTON RAPID BURST RESPONSE  
 01/19/1999 - 01/14/2000 FY00: -\$30 Total: \$3,970  
 Prin. Invest.: J R RYAN  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7895 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6397**  
 SOLAR FLARE NUCLEAR SPECTROSCOPY  
 12/02/1998 - 12/14/1999 FY00: \$0 Total: \$10,000  
 Prin. Invest.: J M RYAN  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8041 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6398**  
 INVESTIGATION OF POLAR CAP AND RING CURRENT PRECIPITATION  
 01/07/1999 - 01/14/2001 FY00: \$0 Total: \$60,895  
 Prin. Invest.: R B TOBBERT  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 8044 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6399**  
 AN INVESTIGATION OF THE CHARGE STATE COMPOSITION OF SOLAR &  
 SHOCK-ACCELERATED SUPRATHERMAL PA  
 01/11/1999 - 01/14/2000 FY00: \$0 Total: \$36,081  
 Prin. Invest.: A B GALVIN  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 8228 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6400**  
 "THEORETICAL STUDIES OF THE SOLAR ATMOSPHERE AND SOLAR WIND".  
 02/24/1999 - 03/14/2001 FY00: \$374,916 Total: \$739,914  
 Prin. Invest.: J V HOLLWEG  
 Tech. Officer: GSFC/J M GREBOWSKY  
 CASE Category: 13 - PHYSICS

**NAG 5 8436 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6401**  
 TESTING THE PARADIGM FOR X-RAY-SELECTED BL LACERTAE: JOINT  
 X-RAY AND GEV/TeV GAMMA-RAY OBSERVATIONS  
 04/02/1999 - 03/31/2000 FY00: \$0 Total: \$8,730  
 Prin. Invest.: W VESTRAND  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8443 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6402**  
 A WATER BUDGET CLOSURE SYSTEM TO SUPPORT LBA HYDRO  
 METEOROLOGY AND ECOLOGY STUDIES  
 04/08/1999 - 04/14/2001 FY00: \$128,412 Total: \$223,264  
 Prin. Invest.: C J VOROSMARTY  
 Tech. Officer: GSFC/P T HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8452 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6403**  
 USE OF SAR FOR MONITORING DEFORESTATION AND SECONDARY  
 GROWTH IN THE TROPICS  
 04/09/1999 - 08/31/2000 FY00: \$0 Total: \$41,542  
 Prin. Invest.: W SALAS  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8486 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6404**  
 SONTRAC - A NEUTRON TRACKING DEVICE FOR SOLAR AND  
 ATMOSPHERIC PHYSICS  
 04/29/1999 - 10/30/2000 FY00: \$78,338 Total: \$171,043  
 Prin. Invest.: J M RYAN  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8641 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6405**  
 AN APD READOUT SCHEME FOR A SOLAR NEUTRON TRACKING DEVICE.  
 07/08/1999 - 08/30/2001 FY00: \$77,325 Total: \$368,600  
 Prin. Invest.: M L MCCONNELL  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 13 - PHYSICS

**NAG 5 8656 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6406**  
 EDUCATION & PUBLIC OUTREACH PROPOSAL - UNIVERSITY-LEVEL  
 RESEARCH PROJECTS FOR HIGH SCHOOL STUDENTS  
 08/19/1999 - 08/31/2000 FY00: \$0 Total: \$1,000  
 Prin. Invest.: M MCCONNELL  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8683 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6407**  
 THE CONTRIBUTION OF SATELLITE RADAR ALTIMETRY TO THE DETER-  
 MINATION OF RIVER DISCHARGE & LAKE/RESERVOIR  
 07/23/1999 - 07/14/2001 FY00: \$82,796 Total: \$132,199  
 Prin. Invest.: C J VOROSMARTY  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8733 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6408**  
 CONVERSION SURFACE TECHNOLOGY FOR LOW ENERGY NEUTRAL  
 ATOM IMAGING.  
 08/14/1999 - 08/31/2001 FY00: \$171,390 Total: \$352,372  
 Prin. Invest.: J QUINN  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8828 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6409**  
 "COOPERATION BETWEEN IGBP AND LAB: MEETING THE INTERNATIONAL  
 CHALLENGE"  
 09/08/1999 - 09/14/2000 FY00: \$0 Total: \$116,500  
 Prin. Invest.: B MOORE III  
 Tech. Officer: GSFC/D DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9614 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6410**  
 MAGNETIC RECONNECTION IN SOLAR FLARES  
 05/16/2000 - 05/14/2001 FY00: \$29,840 Total: \$29,840  
 Prin. Invest.: T G FORBES  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9617 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6411**  
 A REGIONAL INTEGRATED MONITORING SYSTEM FOR THE HYDROLOGY  
 OF THE PAN-ARCTIC MASS  
 05/23/2000 - 04/30/2001 FY00: \$81,559 Total: \$81,559  
 Prin. Invest.: C VOROSMARTY  
 Tech. Officer: GSFC/P HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9685 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6412**  
 CONSOLIDATING THE VELA-REGION 1.809 MEV RESULTS  
 06/05/2000 - 06/14/2001 FY00: \$3,500 Total: \$3,500  
 Prin. Invest.: J RYAN  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9689 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6413**  
 LONG DURATION SOLAR OBSERVATIONS WITH COMPTEL  
 06/15/2000 - 06/14/2001 FY00: \$5,000 Total: \$5,000  
 Prin. Invest.: M L MCCONNELL  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9800 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6414**  
 CLUSTER ELECTRON DRIFT INSTRUMENT (EDI).  
 09/20/2000 - 09/30/2001 FY00: \$341,584 Total: \$341,584  
 Prin. Invest.: J M QUINN  
 Tech. Officer: GSFC/M GOLDSTEIN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 5 00132 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6415**  
 STEREO PHASE A CONCEPT STUDY FOR INSTANT MEASUREMENTS OF  
 PARTICLES & CME TRANSIENT (IMPACT)  
 02/22/2000 - 10/31/2000 FY00: \$497,900 Total: \$497,900  
 Prin. Invest.: A GALVIN  
 Tech. Officer: GSFC/A HARPER  
 CASE Category: 13 - PHYSICS

**NAS 5 26645 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6416**  
 DEFINITION PHASE OF THE DETECTOR SUBSYSTEM FOR THE COMPTEL  
 08/19/1981 - 09/30/2000 FY00: \$150,000 Total: \$30,291,653  
 Prin. Invest.: J RYAN  
 Tech. Officer: GSFC/J NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAS 5 30744 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6417**  
 ELECTRON DRIFT EXPERIMENT & ACTIVE SPACECRAFT POTENTIAL  
 11/22/1989 - 10/17/2000 FY00: \$36,315 Total: \$16,084,594  
 Prin. Invest.: R TORBERT, NONE  
 Tech. Officer: GSFC/L CHRISTENSEN  
 CASE Category: 13 - PHYSICS

**NAS 5 96063 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6418**  
 MODIS-EOS DEVELOPMENT OF ALGORITHMS  
 07/16/1996 - 12/14/2001 FY00: \$246,000 Total: \$939,000  
 Prin. Invest.: J CAMPBELL  
 Tech. Officer: GSFC/D TOLL, GSFC/B CONBOY  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 298 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6419**  
 PEM-TROPICS B MY 1/2  
 04/30/1998 - 07/31/2001 FY00: \$81,000 Total: \$818,000  
 Prin. Invest.: R W TALBOT, J E DIBB  
 Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 410 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6420**  
 TRACE-P DC-8 AND P3-B AIRCRAFT MY 1/3  
 09/13/2000 - 06/30/2003 FY00: \$210,968 Total: \$210,968  
 Prin. Invest.: R W TALBOT  
 Tech. Officer: LARC/J L RAPER, SR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 226 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6421**  
 TROPICAL BIOCHEMISTRY & NASA LBA ECOLOGY SCIENCE S  
 09/10/1997 - 12/31/2000 FY00: \$122,661 Total: \$483,415  
 Prin. Invest.: D BARTLETT  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 304 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6422**  
 WEB BASED SYSTEM FOR TERRESTRIAL ENVIRONMENTAL RESEARCH  
 04/22/1998 - 02/28/2001 FY00: \$1,025,000 Total: \$2,775,000  
 Prin. Invest.: B MOORE, NONE  
 Tech. Officer: GSFC/M MAIDEN  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NCC 5 338 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6423**  
 MODELING THE BIOGEOCHEMICAL SYSTEM OF THE TERRESTRIAL  
 AMAZON: ISSUES FOR SUSTAINABILITY  
 06/23/1998 - 12/31/2000 FY00: \$317,773 Total: \$790,606  
 Prin. Invest.: B MOORE, 111  
 Tech. Officer: GSFC/D W DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 357 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6424**  
 SOIL BIOGEOCHEMISTRY OF CARBON, NUTRIENTS AND TRAC E GAS IN  
 THE AMAZON REGION OF BRAZIL: FIELD AND  
 08/03/1998 - 07/31/2001 FY00: \$341,863 Total: \$798,671  
 Prin. Invest.: P CRILL  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 477 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6425**  
 EVALUATION OF HYPERSPECTRAL REQUIREMENTS FOR REMOTE ESTIMA-  
 TION OF FOREST ECOSYSTEM COMPOSITIO  
 03/22/2000 - 12/31/2000 FY00: \$13,068 Total: \$13,068  
 Prin. Invest.: M E MARTIN  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 499 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6426**  
 "LENA/IMAGE" MO&DA - ON-ORBIT EVALUATION & VALIDA TION OF THE  
 LENA INSTRUMENTOPERATION & DATA  
 05/03/2000 - 09/30/2000 FY00: \$28,065 Total: \$28,065  
 Prin. Invest.: J M QUINN  
 Tech. Officer: GSFC/T E MOORE  
 CASE Category: 11 - ASTRONOMY

**NGT 5 30014 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6427**  
 CHEMISTRY AND DEPOSITION OF ATMOSPHERIC NITROGEN I ENVIRON-  
 MENT  
 10/14/1996 - 08/31/1999 FY00: -\$6 Total: \$65,994  
 Prin. Invest.: R TALBOT  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30125 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6428**  
 SOIL HYDROLOGICAL CONTROLS OVER NITROGEN OXIDE EMI SSIONS  
 AND NITROGEN CYCLING IN TROPICAL AGRICUL  
 06/03/1998 - 08/31/2000 FY00: \$0 Total: \$86,000  
 Prin. Invest.: P CRILL  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30349 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6429**  
 SOURCE APPORTIONMENT OF ANTHROPOGENIC AEROSOLS CON TRIB-  
 UTING TO DIRECT RADIATIVE FORCING IN SOUTHERN  
 08/24/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J E DIBB  
 Tech. Officer: GSFC/M WEITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40010 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6430**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 01/30/1997 - 02/28/2001 FY00: \$431,250 Total: \$1,283,147  
 Prin. Invest.: D S BARTLETT  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50096 UNIVERSITY OF NEW HAMPSHIRE - DURHAM 6431**  
 INVESTIGATE MESOSPHERIC DUST AS A SOURCE FOR SUDE GRADUATE  
 STUDENT RESEARCHERS PROGRAM  
 08/21/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: D LYNCH  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

## NEW JERSEY

**NAG 3 2367 NEW JERSEY INSTITUTE OF TECHNOLOGY 6432**  
 GRAVITY AND GRANULAR MATERIALS GRAVITY AND GRANULAR  
 MATERIALS  
 03/24/2000 - 11/30/2003 FY00: \$9,898 Total: \$9,898  
 Prin. Invest.: L KONDIC  
 Tech. Officer: GRC/A WILKENSEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2459 NEW JERSEY INSTITUTE OF TECHNOLOGY 6433**  
 DATA ANALYSIS FOR REAL-TIME/POST FLIGHT HEALTH MON ITORING OF  
 PROPULSION SYSTEMS  
 06/07/2000 - 12/31/2000 FY00: \$55,717 Total: \$55,717  
 Prin. Invest.: D P DHAWAN  
 Tech. Officer: GRC/E WONG  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2475 NEW JERSEY INSTITUTE OF TECHNOLOGY 6434**  
 DATA MINING AND OPTIMIZATION TOOLS FOR ENGINE COND ITION  
 MONITORING  
 07/19/2000 - 11/30/2001 FY00: \$33,423 Total: \$33,423  
 Prin. Invest.: D P DHAWAN  
 Tech. Officer: GRC/J LITT  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 5 3536 NEW JERSEY INSTITUTE OF TECHNOLOGY 6435**  
 THE STUDY OF QUIET SUN ATMOSPHERE AND MAGNETIC FIE SOHO AND  
 BBSO OBSERVATIONS  
 12/14/1996 - 11/30/1999 FY00: \$0 Total: \$175,893  
 Prin. Invest.: D WANG  
 Tech. Officer: GSFC/A POLAND  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4919 NEW JERSEY INSTITUTE OF TECHNOLOGY 6436**  
 STUDIES OF SOLAR MAGNETIC FIELDS AND SOLAR ACTIVIT  
 07/08/1997 - 05/31/2000 FY00: \$0 Total: \$1,044,475  
 Prin. Invest.: D R GOODE  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6055 NEW JERSEY INSTITUTE OF TECHNOLOGY 6437**  
 STUDY OF FILAMENT ERUPTIONS AND CORONAL MASS EJECT SOHO  
 OBSERVATIONS  
 07/28/1997 - 06/30/1999 FY00: \$0 Total: \$76,000  
 Prin. Invest.: D WANG, NONE  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 6381 NEW JERSEY INSTITUTE OF TECHNOLOGY 6438**  
 MEASUREMENTS OF THE SOLAR CORONA AND MAGNETIC FIEL DS USING  
 IMAGINGMICROWAVE SPECTROSCOPY  
 10/31/1997 - 06/30/2001 FY00: \$82,555 Total: \$316,003  
 Prin. Invest.: D GARY  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 7085 NEW JERSEY INSTITUTE OF TECHNOLOGY 6439**  
 STATISTICAL STUDIES OF FILAMENT DIAPPEARANCES BY A NALYZING  
 FULL-DISK YOHKOH SXT AND BBSO HX DATA  
 03/13/1998 - 04/14/2001 FY00: \$31,847 Total: \$105,906  
 Prin. Invest.: H WANG  
 Tech. Officer: GSFC/W WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7349 NEW JERSEY INSTITUTE OF TECHNOLOGY 6440**  
 SOHO/BBSO COORDINATED STUDY ON H AND UV JETS  
 05/06/1998 - 09/30/1999 FY00: \$0 Total: \$69,105  
*Prin. Invest.:* H WANG  
*Tech. Officer:* GSFC/A POLAND  
*CASE Category:* 13 - PHYSICS

**NAG 5 7350 NEW JERSEY INSTITUTE OF TECHNOLOGY 6441**  
 STUDY OF FILAMENT ERUPTIONS AND CORONAL MASS EJECT IONS BY  
 JOINTBBSO/SOHO OBSERVATIONS  
 05/06/1998 - 04/30/1999 FY00: -\$11 Total: \$45,989  
*Prin. Invest.:* H WANG  
*Tech. Officer:* GSFC/A POLAND  
*CASE Category:* 13 - PHYSICS

**NAG 5 7454 NEW JERSEY INSTITUTE OF TECHNOLOGY 6442**  
 EARTHSHINE MEASUREMENTS OF GLOBAL ATMOSPHERIC PROPERTIES  
 07/23/1998 - 07/31/2001 FY00: \$0 Total: \$218,545  
*Prin. Invest.:* P R GOODE  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7837 NEW JERSEY INSTITUTE OF TECHNOLOGY 6443**  
 SOHO/BBSO COORDINATED STUDY ON MAGNETIC RECONNECT ION IN  
 THE QUIET SUN  
 12/22/1998 - 12/31/2000 FY00: \$77,533 Total: \$151,209  
*Prin. Invest.:* H WANG  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8329 NEW JERSEY INSTITUTE OF TECHNOLOGY 6444**  
 INSTRUMENT UPGRADES AT BBSO TO SUPPORT HESSI OBSERVATIONS  
 04/29/1999 - 04/30/2000 FY00: \$0 Total: \$70,000  
*Prin. Invest.:* H WANG  
*Tech. Officer:* GSFC/W J WANGER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8466 NEW JERSEY INSTITUTE OF TECHNOLOGY 6445**  
 SOFTWARE DEVELOPMENT FOR THE OWENS VALLEY SOLAR ARRAY IN  
 SUPPORT OF HESSI  
 04/29/1999 - 09/30/2000 FY00: \$0 Total: \$73,517  
*Prin. Invest.:* D E GARY  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8485 NEW JERSEY INSTITUTE OF TECHNOLOGY 6446**  
 INTERACTION OF WAVES AND CONVECTION IN THE SUN  
 05/04/1999 - 04/30/2001 FY00: \$42,259 Total: \$83,494  
*Prin. Invest.:* M F WOODARD  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9501 NEW JERSEY INSTITUTE OF TECHNOLOGY 6447**  
 STUDIES OF SMALL-SCALE DYNAMICS BY JOINT TRACE AND BBSO  
 OBSERVATIONS  
 04/20/2000 - 04/30/2001 FY00: \$41,871 Total: \$41,871  
*Prin. Invest.:* H WANG  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 13 - PHYSICS

**NAG 5 9519 NEW JERSEY INSTITUTE OF TECHNOLOGY 6448**  
 SOURCES OF SOLAR IRRADIANCE VARIATION  
 05/02/2000 - 04/30/2001 FY00: \$47,100 Total: \$47,100  
*Prin. Invest.:* M F WOODARD  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 13 - PHYSICS

**NAG 5 9682 NEW JERSEY INSTITUTE OF TECHNOLOGY 6449**  
 STUDIES OF SOLAR MAGNETIC FIELDS & SOLAR ACTIVITY  
 06/26/2000 - 05/31/2001 FY00: \$261,289 Total: \$261,289  
*Prin. Invest.:* P R GOODE  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 13 - PHYSICS

**NAG 5 9730 NEW JERSEY INSTITUTE OF TECHNOLOGY 6450**  
 NEW GRANT GLOBAL ASYMMETRIES IN SOLAR INTERIOR FROM SOHO  
 06/22/2000 - 06/30/2001 FY00: \$73,307 Total: \$73,307  
*Prin. Invest.:* P GOODE  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9738 NEW JERSEY INSTITUTE OF TECHNOLOGY 6451**  
 NEW GRANT STUDY OF FILAMENT ERUPTIONS AND CORONAL MASS EJECT-  
 IONS BY SOHO  
 07/18/2000 - 07/31/2001 FY00: \$100,440 Total: \$100,440  
*Prin. Invest.:* H WANG  
*Tech. Officer:* GSFC/J GURMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1114 NEW JERSEY INSTITUTE OF TECHNOLOGY 6452**  
 JOVE  
 02/01/1995 - 06/30/1999 FY00: -\$2,680 Total: \$164,155  
*Prin. Invest.:* S BAOHERI, A SOHN, M BIEBER  
*Tech. Officer:* MSFC/F SIX  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1714 NEW JERSEY INSTITUTE OF TECHNOLOGY 6453**  
 HIGH TEMPERATURE PHASES AND PHASE EQUILIBRIA IN REACTIVE  
 MOLTEN METAL-BASED SYSTEMS  
 05/04/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* E DREIZIN  
*Tech. Officer:* MSFC/P DOTY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 3 746 NEW JERSEY INSTITUTE OF TECHNOLOGY 6454**  
 DETAILED REACTION MECHANISMS AND PARTICLE INTERACT ION IN  
 BURNING TWO-PHASE SYSTEMS  
 12/07/1999 - 11/22/2000 FY00: \$53,363 Total: \$53,363  
*Prin. Invest.:* E L DREIZIN  
*Tech. Officer:* GRC/R F FRIEDMAN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 9103 PASSAIC COUNTY COMMUNITY COLLEGE 6455**  
 PANTHER PROJECT (PATERSON & NASA TOGETHER FOR HIGH EXPECTA-  
 TIONS & RESULTS)  
 03/10/2000 - 02/28/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* R EPSTEIN  
*Tech. Officer:* HQ/STOUTSENBERGER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

<b>NAG 1 2291</b>	<b>PRINCETON UNIVERSITY</b>	<b>6456</b>
ADAPTIVE AND OPTIMAL CONTROLLER DESIGNS FOR UNCERTAIN AEROSPACE STRUCTURES		
04/13/2000 - 02/14/2002	FY00: \$45,000	Total: \$45,000
Prin. Invest.: M Q PHAN		
Tech. Officer: LARC/P G MAGHAMI		
CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 2 561</b>	<b>PRINCETON UNIVERSITY</b>	<b>6457</b>
STUDIES IN ROTORCRAFT SYSTEM IDENTIFICATION		
02/03/1989 - 01/31/2000	FY00: \$0	Total: \$372,867
Prin. Invest.: H C CURTISS, R M MCKILLUP		
Tech. Officer: ARC/J A FRANKLIN, ARC/M B TISCHLER		
CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 2 1327</b>	<b>PRINCETON UNIVERSITY</b>	<b>6458</b>
DEVELOPMENT OF UNSTRUCTURED METHODS FOR EFFICIENT AERODYNAMIC SIMULATION & DESIGN		
05/21/1999 - 10/14/2000	FY00: \$35,000	Total: \$135,747
Prin. Invest.: T J BAKER, A J SMITS		
Tech. Officer: ARC/S E CLIFF		
CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 2 1400</b>	<b>PRINCETON UNIVERSITY</b>	<b>6459</b>
STUDIES IN ROTORCRAFT SYSTEM IDENTIFICATION		
03/28/2000 - 02/14/2001	FY00: \$22,500	Total: \$22,500
Prin. Invest.: H C CURTIS		
Tech. Officer: ARC/M B TISCHLER		
CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 3 2164</b>	<b>PRINCETON UNIVERSITY</b>	<b>6460</b>
FUNDAMENTAL CHARACTERIZATION & KINETIC STUDIES OF EMISSIONS SPECIES: FUEL SULFUR ISSUES & SOX/NOX/CO		
05/21/1998 - 03/12/2001	FY00: \$21,812	Total: \$241,512
Prin. Invest.: F L DRYER, R A YETTER		
Tech. Officer: GRC/C C WEY		
CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 3 2248</b>	<b>PRINCETON UNIVERSITY</b>	<b>6461</b>
THE CONTROL AND DYNAMICS OF HARD SPHERE COLLOIDAL DISPERSIONS		
03/30/1999 - 02/23/2004	FY00: \$350,000	Total: \$600,000
Prin. Invest.: P M CHALKIN		
Tech. Officer: GRC/B S SINGH		
CASE Category: 49 - ENGINEERING, OTHER		
<b>NAG 3 2380</b>	<b>PRINCETON UNIVERSITY</b>	<b>6462</b>
ELECTROHYDRODYNAMIC FLOWS IN ELECTROCHEMICAL SYSTEMS		
04/06/2000 - 11/30/2003	FY00: \$60,000	Total: \$60,000
Prin. Invest.: D A SAVILLE		
Tech. Officer: GRC/F P CHIARAMONTE		
CASE Category: 19 - PHYSICAL SCIENCE, OTHER		
<b>NAG 3 2473</b>	<b>PRINCETON UNIVERSITY</b>	<b>6463</b>
FUEL SULFUR ISSUES AND SOX/NOX/COX HOT SECTION INTERACTIONS		
07/12/2000 - 07/06/2001	FY00: \$100,087	Total: \$100,087
Prin. Invest.: D L DRYER		
Tech. Officer: GRC/M RABINOWITZ		
CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 5 616</b>	<b>PRINCETON UNIVERSITY</b>	<b>6464</b>
INTERSTELLAR MEDIUM ABSORPTION PROFILE SPECTROGRAPH (IMAPS)		
01/01/1983 - 10/31/2000	FY00: \$0	Total: \$10,712,016
Prin. Invest.: E B JENKINS		
Tech. Officer: GSFC/W B JOHNSON		
CASE Category: 13 - PHYSICS		
<b>NAG 5 1629</b>	<b>PRINCETON UNIVERSITY</b>	<b>6465</b>
HST GTO PARTICIPATION		
07/15/1991 - 08/31/2000	FY00: \$0	Total: \$825,196
Prin. Invest.: E J GROTH		
Tech. Officer: GSFC/S SOBIESKI		
CASE Category: 11 - ASTRONOMY		
<b>NAG 5 3364</b>	<b>PRINCETON UNIVERSITY</b>	<b>6466</b>
ORIGIN AND EVOLUTION OF DUST IN ELLIPTICAL GALAXIES		
08/28/1996 - 08/31/2001	FY00: \$0	Total: \$151,000
Prin. Invest.: G R KNAPP		
Tech. Officer: GSFC/D WEST		
CASE Category: 11 - ASTRONOMY		
<b>NAG 5 6494</b>	<b>PRINCETON UNIVERSITY</b>	<b>6467</b>
REMOTE SENSING FOR LAND SURFACE HYDROLOGY: ACCURACY AND UNCERTAINTY ANALYSES		
10/27/1997 - 09/30/2001	FY00: \$94,808	Total: \$436,752
Prin. Invest.: E WOOD		
Tech. Officer: GSFC/J DODGE		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 6511</b>	<b>PRINCETON UNIVERSITY</b>	<b>6468</b>
"ESTIMATION OF FLOOD HAZARDS THROUGH REMOTE SENSING AND MODELING"		
11/04/1997 - 10/31/2000	FY00: \$48,224	Total: \$144,589
Prin. Invest.: E WOOD		
Tech. Officer: GSFC/H V FREY		
CASE Category: 32 - GEOLOGICAL SCIENCE		
<b>NAG 5 6591</b>	<b>PRINCETON UNIVERSITY</b>	<b>6469</b>
EVALUATION AND INTERCOMPARISON OF THREE-DIMENSIONAL GLOBAL MARINE CARBON CYCLE MODELS		
11/07/1997 - 12/31/2000	FY00: \$57,978	Total: \$172,804
Prin. Invest.: J L SARMIENTO		
Tech. Officer: GSFC/G ASRAR		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 6671</b>	<b>PRINCETON UNIVERSITY</b>	<b>6470</b>
REMOTE SENSING FOR REGIONAL ENVIRONMENTAL IMPACT ASSESSMENT OF LAND CONVERSION FOR BIOMASS PRODUCTION		
12/16/1997 - 10/31/1999	FY00: \$0	Total: \$102,000
Prin. Invest.: E LARSON		
Tech. Officer: GSFC/M WEI		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 6734</b>	<b>PRINCETON UNIVERSITY</b>	<b>6471</b>
IMAGING THE CELESTIAL EQUATOR AT 12 MICRONS AND 2.5 MICRONS AND COMPARISON WITH FIVE COLOR		
12/16/1997 - 12/31/2000	FY00: \$0	Total: \$45,000
Prin. Invest.: G KNAPP		
Tech. Officer: GSFC/D WEST		
CASE Category: 11 - ASTRONOMY		

<b>NAG 5 7016</b>	<b>PRINCETON UNIVERSITY</b>	<b>6472</b>	<b>NAG 5 7544</b>	<b>PRINCETON UNIVERSITY</b>	<b>6480</b>
ASTROMETRY OF GRAVITATIONAL LENSING WITH SIMBAD			HYDROLOGY OF EXTREME FLOODS FOR THE UNITED STATES EAST OF THE ROCKYMOUNTAINS		
02/17/1998 - 02/14/2000	FY00: \$0	Total: \$92,522	06/23/1998 - 06/30/2001	FY00: \$0	Total: \$246,097
Prin. Invest.: B PACZYNSKI			Prin. Invest.: J A SMITH		
Tech. Officer: GSFC/D K WEST			Tech. Officer: GSFC/E T ENGMAN		
CASE Category: 11 - ASTRONOMY			CASE Category: 32 - GEOLOGICAL SCIENCE		
<b>NAG 5 7030</b>	<b>PRINCETON UNIVERSITY</b>	<b>6473</b>	<b>NAG 5 7744</b>	<b>PRINCETON UNIVERSITY</b>	<b>6481</b>
INTERSTELLAR STUDIES - ATP			DEVELOPMENT AND EVALUATION OF RADAR DATA QUALITY CONTROL ALGORITHMS		
02/17/1998 - 02/14/2001	FY00: \$99,852	Total: \$297,933	10/28/1998 - 10/31/2000	FY00: \$81,590	Total: \$178,081
Prin. Invest.: B T DRAINE			Prin. Invest.: J A SMITH		
Tech. Officer: GSFC/D K WEST			Tech. Officer: GSFC/O W THIELE		
CASE Category: 11 - ASTRONOMY			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 5 7047</b>	<b>PRINCETON UNIVERSITY</b>	<b>6474</b>	<b>NAG 5 8083</b>	<b>PRINCETON UNIVERSITY</b>	<b>6482</b>
QUASAR ABSORPTION LINES AT LOW AND INTERMEDIATE REDSHIFTS - ATP			STARSPOTS AND VARIABILITY IN AGB STARS		
02/19/1998 - 02/14/2001	FY00: \$54,000	Total: \$156,000	01/21/1999 - 01/31/2000	FY00: \$0	Total: \$26,871
Prin. Invest.: J N BACHALL			Prin. Invest.: G R KNAPP		
Tech. Officer: GSFC/R J OLIVERSEN			Tech. Officer: GSFC/D K WEST		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7066</b>	<b>PRINCETON UNIVERSITY</b>	<b>6475</b>	<b>NAG 5 8084</b>	<b>PRINCETON UNIVERSITY</b>	<b>6483</b>
DYNAMICS OF THE GALAXY, GLOBULAR CLUSTERS, AND THE LOCAL GROUP - ATP			PRIMARY AND SECONDARY ANISOTROPIES OF COSMIC MICROWAVE BACKGROUND		
02/26/1998 - 02/28/2001	FY00: \$73,480	Total: \$229,480	01/19/1999 - 02/28/2001	FY00: \$86,664	Total: \$178,664
Prin. Invest.: S D TREMAINE			Prin. Invest.: U SELJAK		
Tech. Officer: GSFC/D K WEST			Tech. Officer: GSFC/D K WEST		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7154</b>	<b>PRINCETON UNIVERSITY</b>	<b>6476</b>	<b>NAG 5 8151</b>	<b>PRINCETON UNIVERSITY</b>	<b>6484</b>
FORMATION AND EVOLUTION OF GROUPS AND FILAMENTS - ATP			ON THE SPACE-TIME ORGANIZATION OF SOIL MOISTURE FIELDS: DYNAMICS & INTERACTION WITH THE ATMOSPHERE		
03/16/1998 - 03/14/2001	FY00: \$114,924	Total: \$348,752	02/05/1999 - 08/31/1999	FY00: \$0	Total: \$76,782
Prin. Invest.: D N SPERGER			Prin. Invest.: I RODRIQUEZ		
Tech. Officer: GSFC/D K WEST			Tech. Officer: GSFC/M Y WEI		
CASE Category: 11 - ASTRONOMY			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NAG 5 7297</b>	<b>PRINCETON UNIVERSITY</b>	<b>6477</b>	<b>NAG 5 8365</b>	<b>PRINCETON UNIVERSITY</b>	<b>6485</b>
A TERRESTRIAL WATER AND ENERGY BUDGET FOR THE BOREAL STUDY REGION SCALE USING FIELD MEASUREMENTS, R			STUDYING THE EVOLUTION OF X-RAY CLUSTERS OF GALAXIES USING LARGE-SCALE HIGH RESOLUTION COSMOLOGIC		
04/21/1998 - 04/30/2001	FY00: \$17,851	Total: \$103,503	03/15/1999 - 03/14/2001	FY00: \$111,348	Total: \$239,507
Prin. Invest.: E F WOOD			Prin. Invest.: R CEN		
Tech. Officer: GSFC/D E WICKLAND			Tech. Officer: GSFC/D K WEST		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7310</b>	<b>PRINCETON UNIVERSITY</b>	<b>6478</b>	<b>NAG 5 8385</b>	<b>PRINCETON UNIVERSITY</b>	<b>6486</b>
LONG-TERM ORBITAL EVOLUTION IN PLANETARY SYSTEMS AND PROTOPLANETARY DISKS			EVOLUTION AND DYNAMICS OF PROTOSTELLAR DISKS		
04/22/1998 - 04/30/2001	FY00: \$67,000	Total: \$217,000	03/03/1999 - 02/28/2001	FY00: \$40,000	Total: \$85,000
Prin. Invest.: S D TREMAINE			Prin. Invest.: J GOODMAN		
Tech. Officer: HQ/J BOYCE			Tech. Officer: GSFC/J BOYCE		
CASE Category: 11 - ASTRONOMY			CASE Category: 11 - ASTRONOMY		
<b>NAG 5 7395</b>	<b>PRINCETON UNIVERSITY</b>	<b>6479</b>	<b>NAG 5 8676</b>	<b>PRINCETON UNIVERSITY</b>	<b>6487</b>
THEORETICAL STUDY OF SOLAR ACOUSTIC OSCILLATIONS			ATMOSPHERIC AEROSOL EVOLUTION AND EXCHANGE		
05/11/1998 - 05/14/1999	FY00: \$0	Total: \$20,000	07/08/1999 - 07/14/2002	FY00: \$220,743	Total: \$322,129
Prin. Invest.: D KUMAR			Prin. Invest.: L RUSSELL		
Tech. Officer: GSFC/W WAGNER			Tech. Officer: GSFC/M WEI		
CASE Category: 11 - ASTRONOMY			CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		

**NAG 5 9274** **PRINCETON UNIVERSITY** **6488**  
 EARLY IDENTIFICATION & INTERPRETATION OF QUASAR/ AGN MICRO-  
 LENSING EVENT: PROBES OF ACCRETION DISK  
 03/15/2000 - 03/14/2001 FY00: \$82,240 Total: \$82,240  
 Prin. Invest.: E TURNER  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9284** **PRINCETON UNIVERSITY** **6489**  
 FINDING THE BARYONS: MATCHING COSMOLOGICAL PREDICTIONS WITH  
 THE X-RAY SKY  
 04/17/2000 - 04/30/2001 FY00: \$110,670 Total: \$110,670  
 Prin. Invest.: J P OSTRICKER  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9414** **PRINCETON UNIVERSITY** **6490**  
 UNDERSTANDING WATER, CLIMATE AND GLOBAL CHANGE: A GEWEX  
 GLOBAL WATER AND ENERGY PATHFINDER DATA SET  
 04/11/2000 - 04/14/2001 FY00: \$36,637 Total: \$36,637  
 Prin. Invest.: E WOOD  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9486** **PRINCETON UNIVERSITY** **6491**  
 TERRESTRIAL HYDROLOGY & CLIMATE STUDIES USING EOS- ERA DATA  
 04/17/2000 - 03/31/2001 FY00: \$61,339 Total: \$61,339  
 Prin. Invest.: E WOOD  
 Tech. Officer: GSFC/P HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9635** **PRINCETON UNIVERSITY** **6492**  
 TMI SOIL MOISTURE PATHFINDER DATA STUDY  
 06/05/2000 - 05/31/2001 FY00: \$49,999 Total: \$49,999  
 Prin. Invest.: E WOOD  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9748** **PRINCETON UNIVERSITY** **6493**  
 "SATELLITE ATTITUDE ESTIMATION WITH THE TWO STEP OPTIMAL ESTI-  
 MATOR"  
 07/14/2000 - 07/31/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: N KASDIN  
 Tech. Officer: GSFC/R HARMAN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9810** **PRINCETON UNIVERSITY** **6494**  
 REGIONAL CONTRIBUTION TO THE GLOBAL TROPOSPHERIC OZONE  
 BUDGET-GLOBAL MODELING AND DATA ANALYSIS  
 07/18/2000 - 07/14/2001 FY00: \$29,152 Total: \$29,152  
 Prin. Invest.: D L MAUZERALL  
 Tech. Officer: GSFC/P DECOLA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9891** **PRINCETON UNIVERSITY** **6495**  
 USE OF TRMM DATA TO EVALUATE BENEFITS OF POST-2002 GLOBAL  
 PRECIPITATION MISSION FOR LAND SURFACE HYD  
 08/23/2000 - 08/31/2001 FY00: \$63,000 Total: \$63,000  
 Prin. Invest.: E F WOOD  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 969** **PRINCETON UNIVERSITY** **6496**  
 STUDIES IN ELECTROHYDRODYNAMICS  
 06/02/1993 - 09/30/2000 FY00: \$0 Total: \$840,111  
 Prin. Invest.: D A SAVILLE  
 Tech. Officer: MSFC/BC GUYNES  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1368** **PRINCETON UNIVERSITY** **6497**  
 ELECTROHYDRODYNAMICS OF SUSPENSIONS  
 05/30/1997 - 11/30/2000 FY00: \$126,000 Total: \$389,000  
 Prin. Invest.: D SAVILLE  
 Tech. Officer: MSFC/D NOENER  
 CASE Category: 12 - CHEMISTRY

**NAG 8 1517** **PRINCETON UNIVERSITY** **6498**  
 TERRESTRIAL HYDROLOGY AND CLIMATE STUDIES USING EOS-ERA DATA  
 (CATEGORY 2)  
 05/07/1998 - 04/30/2001 FY00: \$370,700 Total: \$715,753  
 Prin. Invest.: E F WOOD, NONE  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1521** **PRINCETON UNIVERSITY** **6499**  
 OROGRAPHIC RAINFALL IN THE APPALACHIAN REGION OF THE MISSIS-  
 SIPPI RIVER BASIN  
 05/15/1998 - 04/30/2001 FY00: \$67,400 Total: \$206,179  
 Prin. Invest.: J A SMITH  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 30110** **PRINCETON UNIVERSITY** **6500**  
 SPACE TELESCOPE IMAGING SPECTROGRAPH PROGRAM SUPPORT  
 06/17/1987 - 09/30/2001 FY00: \$80,000 Total: \$867,000  
 Prin. Invest.: E JENKINS  
 Tech. Officer: GSFC/D VITAGLINO  
 CASE Category: 11 - ASTRONOMY

**NAS 5 96021** **PRINCETON UNIVERSITY** **6501**  
 MICROWAVE ANISOTROPY PROBE INVESTIGATION (PHASE I DEFINITION  
 STUDY)  
 06/28/1996 - 05/30/2001 FY00: \$1,000,000 Total: \$8,903,000  
 Prin. Invest.: D WILKINSON  
 Tech. Officer: GSFC/R CUDDAPAH  
 CASE Category: 11 - ASTRONOMY

**NCC 3 487** **PRINCETON UNIVERSITY** **6502**  
 SCIENTIFIC SUPPORT FOR A SPACE SHUTTLE DROPLET BURNING  
 EXPERIMENT  
 07/15/1996 - 08/27/1999 FY00: \$0 Total: \$609,383  
 Prin. Invest.: F L DRYER  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 670** **PRINCETON UNIVERSITY** **6503**  
 STRUCTURE AND RESPONSE OF SPHERICAL DIFFUSION FLAMES  
 02/08/1999 - 12/29/2002 FY00: \$192,500 Total: \$305,000  
 Prin. Invest.: C K LAW  
 Tech. Officer: GRC/K SACKSTEDER  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 687** **PRINCETON UNIVERSITY** **6504**  
 AERODYNAMICS AND CHEMICAL KINETICS OF PREMIXED FLAMES AT  
 HIGH PRESSURE  
 03/12/1999 - 01/03/2003 FY00: \$142,500 Total: \$225,000  
 Prin. Invest.: C K LAW  
 Tech. Officer: GRC/D SACKSTEDER  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 735** **PRINCETON UNIVERSITY** **6505**  
 SCIENTIFIC SUPPORT FOR A SPACE SHUTTLE DROPLET BURNING EXPERI-  
 MENT  
 09/30/1999 - 08/18/2002 FY00: \$225,169 Total: \$279,169  
 Prin. Invest.: F L DRYER  
 Tech. Officer: GRC/D L URBAN  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 5 56** **PRINCETON UNIVERSITY** **6506**  
 GSAP TRAINING GRANT FOR THEODORE ENDENY TITLE: NON. SOURCE  
 POLLUTION MODELING USING REMOTE  
 07/25/1997 - 08/31/2000 FY00: \$0 Total: \$86,000  
 Prin. Invest.: E WOOD  
 Tech. Officer: GSFC/E ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 61** **PRINCETON UNIVERSITY** **6507**  
 KALMAN FILTER ESTIMATION OF SEASONAL CO2 FLUXES IN TO THE  
 GLOBAL LAND/OCEAN SURFACE  
 12/16/1997 - 01/31/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: J SARMIENTO  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 13 - PHYSICS

**NGT 5 30015** **PRINCETON UNIVERSITY** **6508**  
 ANALYSIS OF THE FACTORS DETERMINING THE DISTRIBUTION OF TROPO-  
 SPHERE  
 10/23/1996 - 02/28/1999 FY00: -\$5,534 Total: \$49,466  
 Prin. Invest.: H LEVY, 11  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 30113** **PRINCETON UNIVERSITY** **6509**  
 CHANGE IN FOREST COVER OF NANG RONG, THAILAND: AN INTEGRATED  
 PRGM OF LANDSCAPE ANALYSIS, EMPIRICAL  
 10/01/1997 - 08/31/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: S HUBBELL  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30134** **PRINCETON UNIVERSITY** **6510**  
 RESPONSE OF ENSO TO MODULATIONS IN TROPICAL CLIMATE/STU-  
 DENT: WITTENBERG  
 09/04/1998 - 08/31/2001 FY00: \$0 Total: \$44,000  
 Prin. Invest.: G PHILANDER  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30137** **PRINCETON UNIVERSITY** **6511**  
 TRANSBOUNDARY AIR POLLUTION IN ASIA/STUDENT: HOLLOWAY  
 09/04/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: H LEVY, 11  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30156** **PRINCETON UNIVERSITY** **6512**  
 THE INFLUENCE OF THE TROPOSPHERE'S STATIC STABILITY ON CLIMATE-  
 SENSITIVITY  
 08/28/1998 - 08/31/2000 FY00: \$0 Total: \$34,900  
 Prin. Invest.: I M HELD, SCHNEIDER  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30333** **PRINCETON UNIVERSITY** **6513**  
 THE INTERACTION BETWEEN THE ABYSSAL CIRCULATION & THE WIND  
 DRIVEN OCEAN DYNAMICS & EFFECTS ON THE CL  
 08/16/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: G PHILANDER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30341** **PRINCETON UNIVERSITY** **6514**  
 ELEPHANTS, FIRE & VEGETATION CHANGE IN SOUTHERN AFRICAN WOOD-  
 LANDS/STUDENT: RICARDO HOLDO  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: A DOBSON  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30356** **PRINCETON UNIVERSITY** **6515**  
 MODELING MARINE DENITRIFICATION & N2 FIXATION STUDENT: CURTIS  
 DEUTSCH  
 08/24/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J SARMIENTO  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50033** **PRINCETON UNIVERSITY** **6516**  
 MEASURING ANISOTROPY IN THE COSMIC MICROWAVE BACKGROUND  
 RECEIVERS  
 08/04/1997 - 07/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: L PAGE/MILLER  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50065** **PRINCETON UNIVERSITY** **6517**  
 STUDY OF PLASMA ACCELERATION AND HEATING DURING DIRECTIONAL IN A  
 MAGNETOHYDRODYNAMIC LABORATORY EXPERIMENT  
 08/26/1997 - 07/31/2000 FY00: \$0 Total: \$53,167  
 Prin. Invest.: M YAMADA  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50193** **PRINCETON UNIVERSITY** **6518**  
 EXPERIMENTAL & THEORETICAL STUDIES OF ANOMALOUS RESISTIVITY IN  
 MAGNETIC RECONNECTION  
 06/05/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: M YAMADA  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50333** **PRINCETON UNIVERSITY** **6519**  
 ROLE OF GLOBAL SNOW COVER EXTENT ON CLIMATE VARIABILITY &  
 PREDICTABILITY STUDENT: RADHIKA WIJETUNG  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: E F WOOD  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER



<b>NAG 5 8776</b> <b>ROWAN UNIVERSITY</b> <b>6520</b> RESEARCH IN PLANETARY ASTRONOMY 01/09/1998 - 06/30/2000      FY00: \$83,550      Total: \$160,843 Prin. Invest.: D KLASSEN Tech. Officer: GSFC/T MORGAN CASE Category: 11 - ASTRONOMY	<b>NAG 3 2350</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6528</b> THE EFFECT OF GRAVITY ON THE MECHANICS OF FLUIDIZED BEDS 03/16/2000 - 11/30/2003      FY00: \$50,000      Total: \$50,000 Prin. Invest.: D J GLASSER Tech. Officer: GRC/B J MOTIL CASE Category: 49 - ENGINEERING, OTHER
<b>NAG 5 9583</b> <b>ROWAN UNIVERSITY</b> <b>6521</b> FUNDING FOR PROFESSOR KAREN MAGEE-SAUER, DEPT OF CHEMISTRY & PHYSICS; PRODUCTION DATA PROCESSING 06/07/2000 - 05/31/2001      FY00: \$8,900      Total: \$8,900 Prin. Invest.: K MAGEE-SAUER Tech. Officer: GSFC/M J MUMMA CASE Category: 13 - PHYSICS	<b>NAG 5 3158</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6529</b> GUARANTEED TIME OBSERVER: SPACE TELESCOPE IMAGING SPECTROGRAPH 01/23/1996 - 09/30/2001      FY00: \$0      Total: \$564,000 Prin. Invest.: C L JOSEPH Tech. Officer: GSFC/KRUEGER CASE Category: 11 - ASTRONOMY
<b>NCC 3 843</b> <b>ROWAN UNIVERSITY</b> <b>6522</b> NUMERICAL MODEL DEVELOPMENT OF FLAME PROPAGATION THROUGH NON UNIFORM PREMIXED GAS SYSTEMS 08/24/1998 - 06/30/1999      FY00: -\$380      Total: \$9,606 Prin. Invest.: A J MARCHESE Tech. Officer: GRC/H D ROSE CASE Category: 45 - ELECTRICAL ENGR	<b>NAG 5 3432</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6530</b> DETERMINING THE HUBBLE CONSTANT USING X-RAY, OPTIC IONS OF CLUSTER 10/30/1996 - 09/30/2001      FY00: \$260,200      Total: \$638,401 Prin. Invest.: J P HUGHES Tech. Officer: GSFC/R K OLIVERSEN CASE Category: 11 - ASTRONOMY
<b>NAG 1 2058</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6523</b> VALIDATION OF SATELLITE-BASED METHODS AND PARAMETERIZATIONS TO ESTIMATE SURFACE LONGWAVE RADIATION 04/21/1998 - 08/31/1999      FY00: \$0      Total: \$42,171 Prin. Invest.: J A FRANCIS Tech. Officer: LARC/L R POOLE CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4327</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6531</b> ISOTOPIC INVESTIGATIONS OF EXTRATERRESTRIAL MATERIAL 04/11/1997 - 02/28/2001      FY00: \$89,000      Total: \$269,000 Prin. Invest.: D F HERZOG Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY
<b>NAG 1 2154</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6524</b> SAGE II VALIDATION WITH A GLOBAL LIDAR NETWORK MY 1/3 03/10/1999 - 12/31/2001      FY00: \$85,000      Total: \$169,784 Prin. Invest.: A ROBOCK Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4472</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6532</b> SIMULATION AND ANALYSIS OF METEORITIC MATERIAL 06/17/1997 - 02/28/2000      FY00: \$0      Total: \$390,937 Prin. Invest.: D HEWINS Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 1 2182</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6525</b> NANOCOMPOSITES BASED ON LIQUID CRYSTALLINE POLYMERS 04/13/1999 - 10/31/2001      FY00: \$50,001      Total: \$115,001 Prin. Invest.: M JAFFE Tech. Officer: LARC/N J JOHNSON, LARC/J W CONNELLEY CASE Category: 12 - CHEMISTRY	<b>NAG 5 4597</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6533</b> TRANSIENT HEATING IN THE SOLAR ACCRETION DISK 05/15/1997 - 02/28/2001      FY00: \$45,000      Total: \$190,000 Prin. Invest.: R H HEWINS Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 1 2311</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6526</b> NIGHTTIME POLAR CLOUD PARAMETERS RETRIEVED FROM SATELLITE SOUNDER AND IMAGE DATA 06/15/2000 - 06/30/2001      FY00: \$28,375      Total: \$28,375 Prin. Invest.: J A FRANCIS Tech. Officer: LARC/P MINNIS CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4794</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6534</b> DETERMINING THE ABUNDANCES OF THE LMC FROM SUPERNO 06/17/1997 - 06/30/1999      FY00: \$0      Total: \$45,600 Prin. Invest.: J HUGHES Tech. Officer: GSFC/N WHITE CASE Category: 11 - ASTRONOMY
<b>NAG 2 1234</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6527</b> SELF ADAPTIVE SOFTWARE FOR AUTOMATED DESIGN OF COMPLEX ENGINEERING SYSTEMS 07/24/1998 - 02/28/2001      FY00: \$294,120      Total: \$788,238 Prin. Invest.: S AMAREL, T ELLMAN Tech. Officer: ARC/M R LOWRY CASE Category: 22 - COMPUTER SCIENCE	<b>NAG 5 6011</b> <b>RUTGERS STATE UNIVERSITY - PISCATAWAY</b> <b>6535</b> "NJ-NSCORT FOR BIOREGENERATIVE LIFE SUPPORT SYSTEM 07/23/1997 - 04/30/2001      FY00: \$1,200,000      Total: \$4,324,998 Prin. Invest.: H JANES Tech. Officer: GSFC/G FOGLEMAN CASE Category: 59 - LIFE SCIENCE, OTHER

<b>NAG 5 6037 RUTGERS STATE UNIVERSITY - PISCATAWAY 6536</b> BLACK HOLES AND GALAXY DYNAMICS 10/08/1997 - 10/14/2000 FY00: \$115,000 Total: \$335,000 <i>Prin. Invest.:</i> D MERRITT <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 7437 RUTGERS STATE UNIVERSITY - PISCATAWAY 6544</b> ESTABLISHING AND IMPROVING A TRACEABLE, TIME-DEPENDENT PRIMARY PRODUCTION ALGORITHM FOR GENERATING 06/11/1998 - 07/14/2000 FY00: \$21,680 Total: \$306,822 <i>Prin. Invest.:</i> M J BEHRENFELD <i>Tech. Officer:</i> GSFC/J CAMPBELL <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 6106 RUTGERS STATE UNIVERSITY - PISCATAWAY 6537</b> EFFECTS OF RADIATION ON DESORPTION OF SODIUM FROM RELATION TO ORIGINS OF SODIUM IN THE ATMOSPHERES OF 07/30/1997 - 09/14/1999 FY00: \$0 Total: \$109,000 <i>Prin. Invest.:</i> D MADEY <i>Tech. Officer:</i> GSFC/S HOWARD <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 7539 RUTGERS STATE UNIVERSITY - PISCATAWAY 6545</b> SCOPE GENERAL ASSEMBLY WORKSHOP: THE COMMONS REVISITED: AN AMERICAS PERSPECTIVE 06/17/1998 - 05/31/1999 FY00: \$0 Total: \$10,000 <i>Prin. Invest.:</i> M ROBSON <i>Tech. Officer:</i> GSFC/A JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 6419 RUTGERS STATE UNIVERSITY - PISCATAWAY 6538</b> ASCA OBSERVATIONS OF REMNANTS OF TYPE I 01/07/1998 - 11/30/1998 FY00: \$0 Total: \$18,831 <i>Prin. Invest.:</i> J HUGHES <i>Tech. Officer:</i> GSFC/N WHITE <i>CASE Category:</i> 12 - CHEMISTRY	<b>NAG 5 7564 RUTGERS STATE UNIVERSITY - PISCATAWAY 6546</b> EVALUATION OF SNOW WATER EQUIVALENT ACROSS GRASSLAND REGIONS 06/30/1998 - 06/30/2001 FY00: \$0 Total: \$115,143 <i>Prin. Invest.:</i> D ROBINSON <i>Tech. Officer:</i> GSFC/E T ENGMAN <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE
<b>NAG 5 6420 RUTGERS STATE UNIVERSITY - PISCATAWAY 6539</b> ROSAT HRI OBSERVATIONS OF SMC SNRS 11/25/1997 - 10/31/2000 FY00: -\$3,840 Total: \$53,718 <i>Prin. Invest.:</i> J HUGHES <i>Tech. Officer:</i> GSFC/R PETRE <i>CASE Category:</i> 22 - COMPUTER SCIENCE	<b>NAG 5 8213 RUTGERS STATE UNIVERSITY - PISCATAWAY 6547</b> THE IMPACTS OF LAND-USE/LAND-COVER CHANGE IN AMAZONIA ON CLIMATOLOGICAL PROCESS 03/01/1999 - 02/28/2001 FY00: \$87,956 Total: \$208,192 <i>Prin. Invest.:</i> R AVISSAR <i>Tech. Officer:</i> GSFC/E T ENGMAN <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 6614 RUTGERS STATE UNIVERSITY - PISCATAWAY 6540</b> THE TEST AND EVALUATION OF UV DETECTORS 02/12/1998 - 12/31/1999 FY00: \$0 Total: \$64,000 <i>Prin. Invest.:</i> C L JOSEPH <i>Tech. Officer:</i> GSFC/H HASAN <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8820 RUTGERS STATE UNIVERSITY - PISCATAWAY 6548</b> IN SITU MICROANALYSIS OF TRANSITION ELEMENT OXIDATION STATES IN SOLAR SYSTEM MATERIALS 09/07/1999 - 08/31/2000 FY00: \$0 Total: \$30,000 <i>Prin. Invest.:</i> J S DELANEY <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 6982 RUTGERS STATE UNIVERSITY - PISCATAWAY 6541</b> REPRESENTING KEY PHYTOPLANKTON GROUPS IN OCEAN CARBON CYCLE MODELS 03/23/1998 - 03/14/2001 FY00: \$226,005 Total: \$658,307 <i>Prin. Invest.:</i> P G FALKOWSKI <i>Tech. Officer:</i> GSFC/J W CAMPBELL <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 9046 RUTGERS STATE UNIVERSITY - PISCATAWAY 6549</b> ORIGIN AND EVOLUTION OF MASSIVE BLACK HOLES IN GALAXIES - (ATP 99) 03/06/2000 - 05/31/2001 FY00: \$101,413 Total: \$101,413 <i>Prin. Invest.:</i> D MERRITT <i>Tech. Officer:</i> GSFC/R J OLIVERSEN <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 7015 RUTGERS STATE UNIVERSITY - PISCATAWAY 6542</b> THEORETICAL ISSUES FOR INTERPRETING COSMIC MICROWAVE BACK- GROUND MAPS ATP 02/17/1998 - 04/30/2001 FY00: \$33,912 Total: \$100,333 <i>Prin. Invest.:</i> A B KOSOWSKI <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 9259 RUTGERS STATE UNIVERSITY - PISCATAWAY 6550</b> SIMULATION AND ANALYSIS OF METEORITIC MATERIAL 03/17/2000 - 02/28/2001 FY00: \$109,000 Total: \$109,000 <i>Prin. Invest.:</i> J BOYCE <i>Tech. Officer:</i> GSFC/R HEWINS <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 7148 RUTGERS STATE UNIVERSITY - PISCATAWAY 6543</b> UV SOLID STATE DETECTORS 05/04/1998 - 04/14/2001 FY00: \$98,234 Total: \$257,838 <i>Prin. Invest.:</i> C L JOSEPH <i>Tech. Officer:</i> GSFC/W WAGNER <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 9340 RUTGERS STATE UNIVERSITY - PISCATAWAY 6551</b> ATMOSPHERIC IRON FLUXES TO THE OCEAN: SEASONAL PATTERNS AND LINKAGE TO PHYTOPLANKTON BLOOMS 04/11/2000 - 04/30/2001 FY00: \$64,149 Total: \$64,149 <i>Prin. Invest.:</i> Y GAO <i>Tech. Officer:</i> GSFC/J MARRA <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9528 RUTGERS STATE UNIVERSITY - PISCATAWAY 6552**  
 IN SITU SYNCHROTRON MICROXANES MEASUREMENTS OF OXI DATION  
 STATES OF SOLARSYSTEM MATERIALS  
 04/28/2000 - 04/30/2001 FY00: \$69,000 Total: \$69,000  
 Prin. Invest.: J S DELANEY  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9746 RUTGERS STATE UNIVERSITY - PISCATAWAY 6553**  
 SUPPORT FOR THE NASA-HYDROMETEOROLOGY SCIENCE TEAM OFFICE  
 07/11/2000 - 07/14/2001 FY00: \$49,475 Total: \$49,475  
 Prin. Invest.: R AVISSAR, NONE  
 Tech. Officer: GSFC/P R HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9787 RUTGERS STATE UNIVERSITY - PISCATAWAY 6554**  
 ESTABLISHING AND IMPROVING A TRACEABLE, TIME-DEPEN DENT  
 PRIMARY PRODUCTION ALGORITHM FOR GENERATING  
 07/14/2000 - 07/14/2001 FY00: \$37,000 Total: \$37,000  
 Prin. Invest.: M J BEHRENFELD  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9792 RUTGERS STATE UNIVERSITY - PISCATAWAY 6555**  
 VOLCANIC ERUPTIONS AND CLIMATE  
 07/18/2000 - 07/31/2001 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: A ROBECK  
 Tech. Officer: GSFC/K BERGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9813 RUTGERS STATE UNIVERSITY - PISCATAWAY 6556**  
 ULTRAVIOLET TESTING OF GAN BASED UV CCD'S AS DESCR IBED IN THE  
 PROPOSAL "GA CCD'S"  
 07/19/2000 - 07/14/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: D JOSEPH  
 Tech. Officer: GSFC/B MOTT  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9847 RUTGERS STATE UNIVERSITY - PISCATAWAY 6557**  
 OCEAN CARBON FLUX: TRANSPORT & BURIAL WITHIN THE WESTERN &  
 EASTERN U.S. COASTAL ZONES  
 07/31/2000 - 07/31/2001 FY00: \$93,750 Total: \$93,750  
 Prin. Invest.: D HAIDVOGELPrin. Invest.: NONE  
 Tech. Officer: GSFC/E LINSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9927 RUTGERS STATE UNIVERSITY - PISCATAWAY 6558**  
 XMM SPECTRO-IMAGERY OF TWO YOUNG EJECTA-DOMINATED SNRS:  
 KEPLER & W49B  
 09/07/2000 - 09/14/2001 FY00: \$6,240 Total: \$6,240  
 Prin. Invest.: J P HUGHES  
 Tech. Officer: GSFC/D F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9979 RUTGERS STATE UNIVERSITY - PISCATAWAY 6559**  
 CONFRONTING THE COMPLEXITY OF GALAXY CLUSTERS WITH LENSING,  
 SZ, & XMM DATA  
 09/12/2000 - 09/14/2001 FY00: \$28,400 Total: \$28,400  
 Prin. Invest.: J P HUGHES  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9990 RUTGERS STATE UNIVERSITY - PISCATAWAY 6560**  
 XMM STUDIES OF A NEW SAMPLE OF YOUNG EJECTA-DOMINA TED  
 GALACTIC SNRS  
 09/14/2000 - 08/31/2001 FY00: \$29,000 Total: \$29,000  
 Prin. Invest.: J P HUGHES  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10003 RUTGERS STATE UNIVERSITY - PISCATAWAY 6561**  
 BLACK HOLES IN EARLY TYPE GALAXIES: INCIDENCE, FOR MATION AND  
 EVOLUTION  
 09/25/2000 - 08/31/2001 FY00: \$107,278 Total: \$107,278  
 Prin. Invest.: L FERRARESE  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1513 RUTGERS STATE UNIVERSITY - PISCATAWAY 6562**  
 SPATIAL & TEMPORAL VAIABILITY OF SOIL MOISTURE & ITS RELATION TO  
 WATER & ENERGY BALANCES IN A MONSN  
 06/01/1998 - 05/31/2001 FY00: \$100,000 Total: \$339,524  
 Prin. Invest.: Y LIU, R AVISSAR  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAGW 5226 RUTGERS STATE UNIVERSITY - PISCATAWAY 6563**  
 RESEARCH (BIDIRECTIONAL)  
 10/07/1996 - 12/31/1999 FY00: \$0 Total: \$40,000  
 Prin. Invest.: R AVISSAR  
 Tech. Officer: HQ/A C JANETOS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 476 RUTGERS STATE UNIVERSITY - PISCATAWAY 6564**  
 COOPERATIVE RESEARCH IN REGIONAL & GLOBAL CLIMATE VARIABILITY,  
 03/17/2000 - 03/31/2001 FY00: \$541,587 Total: \$541,587  
 Prin. Invest.: R AVISSAR  
 Tech. Officer: GSFC/R STOTHERS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 30062 RUTGERS STATE UNIVERSITY - PISCATAWAY 6565**  
 ANTHROPOGENIC PERTURBATIONS TO THE CARBON CYCLE FR ESTI-  
 MATED FROM NEW HISTORICAL LAND USE DATA  
 09/10/1997 - 08/31/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: D ROBINSON  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30100 RUTGERS STATE UNIVERSITY - PISCATAWAY 6566**  
 EFFECTS OF THE PHRAGMITES AUSTRALIS INVASION ON NI BRACKISH  
 TIDAL MARSH OF THE DELAWARE RIVER USA/L  
 09/15/1997 - 01/31/1999 FY00: \$0 Total: \$22,000  
 Prin. Invest.: R G LATHROP, JR.  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50229 RUTGERS STATE UNIVERSITY - PISCATAWAY 6567**  
 CROP MODELING FOR MULTIPLE CROP PRODUCTION AND CON TROL FOR  
 ADVANCED LIFE SUPPORT SYSTEMS  
 11/04/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: K C TING, FLEISHER  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

<p><b>NAG 5 4871 RUTGERS STATE UNIV OF NJ COOK CAMPUS 6568</b>            ASCA STUDY OF A CRAB LIKE SUPERNOVA REMNANT; ASCA OBSERVATIONS OF SYNIAEV-ZEL DOVICH CLUSTERS            07/14/1997 - 09/30/1999 FY00: \$0 Total: \$79,123  <i>Prin. Invest.:</i> J HUGHES  <i>Tech. Officer:</i> GSFC/N WHITE            CASE Category: 12 - CHEMISTRY</p>	<p><b>NAGW 4760 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK 6576</b>            GENERATION OF AN 18-YEAR TOVS PATHFINDER DATA SET FOR THE ARCTIC BASIN            10/05/1995 - 12/31/1998 FY00: -\$25 Total: \$360,041  <i>Prin. Invest.:</i> J FRANCIS  <i>Tech. Officer:</i> HQ/M E MAIDEN            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 4908 RUTGERS STATE UNIV OF NJ COOK CAMPUS 6569</b>            GENERATION OF 18-YEAR TOVS PATHFINDER DATASET FOR            06/20/1997 - 09/30/1999 FY00: \$0 Total: \$165,223  <i>Prin. Invest.:</i> D J FRANCIS  <i>Tech. Officer:</i> GSFC/S GOGINENI            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAS 5 99138 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK 6577</b>            AIRBORNA (LIFT) METHOD FOR MEASURING PHOTOSYNTHETIC PERFORMANCE &amp; PRIMARY PRODUCTIVITY.            04/15/1999 - 04/15/2001 FY00: \$392,311 Total: \$711,260  <i>Prin. Invest.:</i> Z KOLBER  <i>Tech. Officer:</i> GSFC/J B HARTLEY            CASE Category: 61 - PSYCHOLOGY BIOLOGY</p>
<p><b>NAG 5 7913 RUTGERS STATE UNIV OF NJ COOK CAMPUS 6570</b>            CLIMACTIC EFFECTS OF VOLCANIC ERUPTIONS            12/17/1998 - 12/31/1999 FY00: \$0 Total: \$96,489  <i>Prin. Invest.:</i> G STENCHIKOV  <i>Tech. Officer:</i> GSFC/K H BERGMAN            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 5 4978 STEVENS INSTITUTE OF TECHNOLOGY 6578</b>            ELECTRON COLLISIONS WITH FREE RADICALS            07/18/1997 - 06/30/2000 FY00: \$33,067 Total: \$149,200  <i>Prin. Invest.:</i> D BECKER  <i>Tech. Officer:</i> GSFC/R BEEBEE            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 5 9359 RUTGERS STATE UNIV OF NJ COOK CAMPUS 6571</b>            A STUDY OF TELECONNECTIONS USING A NESTED GCM-RCM &amp; SATELLITE OBSERVATIONS            04/06/2000 - 06/30/2001 FY00: \$50,000 Total: \$50,000  <i>Prin. Invest.:</i> R AVISSAR  <i>Tech. Officer:</i> GSFC/K BERGMAN            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 8971 STEVENS INSTITUTE OF TECHNOLOGY 6579</b>            ELECTRON-IMPACT DISSOCIATION AND EXCITATION OF MOLECULES AND MOLECULAR IONS            01/28/2000 - 12/31/2000 FY00: \$56,614 Total: \$56,614  <i>Prin. Invest.:</i> K BECKER  <i>Tech. Officer:</i> GSFC/D BOGAN            CASE Category: 11 - ASTRONOMY</p>
<p><b>NCC 5 229 RUTGERS STATE UNIV OF NJ COOK CAMPUS 6572</b>            COOPERATIVE RESEARCH IN REGIONAL AND GLOBAL CLIMAT            08/19/1997 - 12/31/1999 FY00: \$0 Total: \$820,829  <i>Prin. Invest.:</i> R AVISSAR  <i>Tech. Officer:</i> GSFC/R B STOTHERS            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 9 1063 STEVENS INSTITUTE OF TECHNOLOGY 6580</b>            INVESTIGATION OF AMBIENT PRESSURE            01/05/1999 - 01/05/2002 FY00: \$136,861 Total: \$275,695  <i>Prin. Invest.:</i> G P KORFIATIS  <i>Tech. Officer:</i> JSC/J GRAF            CASE Category: 54 - ENVIRONMENTAL BIOLOGY</p>
<p><b>NAG 5 7666 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK 6573</b>            THE USE OF SATELLITE-GENERATED METEOROLOGICAL DATA TO PREDICT MOSQUITO-BORNE ENCEPHALITIS TRANSMIS            10/15/1998 - 12/31/1999 FY00: \$0 Total: \$36,000  <i>Prin. Invest.:</i> W CRANS, NONE  <i>Tech. Officer:</i> GSFC/B W MEESON            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAS 5 99238 STEVENS INSTITUTE OF TECHNOLOGY 6581</b>            SENSOR INTERCOMPARISON &amp; MERGER FOR BIOLOGICAL &amp; INTERDISCIPLINARY STUDIES.            09/01/1999 - 02/28/2001 FY00: \$0 Total: \$124,965  <i>Prin. Invest.:</i> K STAMNES, B CHEN  <i>Tech. Officer:</i> GSFC/C MCCLAIN            CASE Category: 33 - OCEANOGRAPHY</p>
<p><b>NAG 5 9833 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK 6574</b>            ULTRAVIOLET TESTIN OF GAN ARRAYS AS DESCRIBED IN THE PROPOSAL "GAN ULTRAVIOLET ARRAYS"            07/26/2000 - 10/31/2001 FY00: \$24,504 Total: \$24,504  <i>Prin. Invest.:</i> D JOSEPH  <i>Tech. Officer:</i> GSFC/B MOTT            CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>	<p><b>NCC 5 224 STEVENS INSTITUTE OF TECHNOLOGY 6582</b>            FUNDING FOR 1997/98 STEVENS TECHNICAL ENRICHMENT P            07/24/1997 - 08/31/2000 FY00: \$0 Total: \$302,690  <i>Prin. Invest.:</i> T WILLIAMS  <i>Tech. Officer:</i> GSFC/D MENCHAN            CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>
<p><b>NAG 9 1923 RUTGERS STATE UNIV OF NJ NEW BRUNSWICK 6575</b>            INNOVATIVE CO2 REMOVAL BIOREACTOR FOR AN ADVANCED MARS EVA SPACESUIT            06/23/2000 - 06/23/2001 FY00: \$99,997 Total: \$99,997  <i>Prin. Invest.:</i> M C TRACHTENBERG, R M COWAN  <i>Prin. Invest.:</i> NONE  <i>Tech. Officer:</i> JSC/G A THOMAS            CASE Category: 49 - ENGINEERING, OTHER</p>	<p><b>NGT 5 40041 STEVENS INSTITUTE OF TECHNOLOGY 6583</b>            NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA            01/24/1997 - 02/28/2001 FY00: \$208,125 Total: \$801,125  <i>Prin. Invest.:</i> S THANGAM  <i>Tech. Officer:</i> GSFC/L KEFFER            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>

## NASA'S UNIVERSITY PROGRAM

NEW MEXICO

**NAG 2 1367 UNIV OF MEDICINE AND DENTISTRY 6584**  
 MURINE DEVELOPMENT: CELLULAR & MOLECULAR ANALYSIS  
 08/02/1999 - 12/14/2000 FY00: \$294,293 Total: \$414,905  
 Prin. Invest.: R S NOWAKOWSKI  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1162 UNIV OF MEDICINE AND DENTISTRY 6585**  
 GLUKOSE KINETICS AND MUSCLE ATROPHY  
 09/21/1999 - 09/29/2002 FY00: \$77,978 Total: \$77,978  
 Prin. Invest.: T P STEIN  
 Tech. Officer: JSC/C W LLOYD  
 CASE Category: 56 - MEDICL

**NCC 2 1001 UNIV OF MEDICINE AND DENTISTRY 6586**  
 EFFECT OF GRAVITY ON ENERGY EXPENDITURE BY RATS  
 07/24/1997 - 06/30/2000 FY00: \$0 Total: \$240,000  
 Prin. Invest.: T P STEIN  
 Tech. Officer: ARC/C E WADE, ARC/S STANLEY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 950 UNIV. OF MEDICINE & DENTISTRY-NJ. 6587**  
 REDUCED GRAVITY: EFFECTS IN THE DEVELOPING NERVOUS SYSTEM  
 (DEFINITION PHASE)  
 12/16/1994 - 11/30/1999 FY00: \$0 Total: \$739,162  
 Prin. Invest.: R S KOWAKOWSKI  
 Tech. Officer: ARC/W E HINDS, ARC/C M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAS 9 19409 UNIV. OF MEDICINE & DENTISTRY-NJ. 6588**  
 PROTEIN METABOLISM DURING LONG TERM SPACE FLIGHTS  
 11/13/1995 - 05/31/1999 FY00: -\$4,954 Total: \$565,565  
 Prin. Invest.: P T STEIN  
 Tech. Officer: JSC/J VILLARREAL  
 CASE Category: 56 - MEDICL

## NEW MEXICO

**NAG 9 1066 COLLEGE OF SANTA FE 6589**  
 MOBILE SCIENCE PROJECT PACE/ MSET  
 01/07/1999 - 12/31/2000 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: B COLEMAN  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 972 EASTERN NEW MEXICO UNIV - MAIN CAMPUS 6590**  
 SUMMER SMET CAMP FOR RURAL MINORITIES GIRLS  
 09/24/1997 - 09/30/2000 FY00: \$0 Total: \$75,000  
 Prin. Invest.: J MILLER  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1255 EASTERN NEW MEXICO UNIV - MAIN CAMPUS 6591**  
 SMET CAMP  
 08/12/2000 - 09/30/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: J MILLER  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1730 INST AMER INDIAN & AK NATIVE CULTURE & DEV 6592**  
 ESTABLISH A COMMUNITY BASED NATIVE AMERICAN AGRICULTURE  
 RESEARCH AND DEVELOPMENT CENTER  
 06/22/2000 - 06/22/2001 FY00: \$98,854 Total: \$98,854  
 Prin. Invest.: S SULNA  
 Tech. Officer: MSFC/W LOVE  
 CASE Category: 55 - AGRICULTURE

**NAG 5 6532 NEW MEXICO HIGHLANDS UNIVERSITY 6593**  
 ALLIANCE FOR NONLINEAR OPTICS  
 12/07/1997 - 09/30/1999 FY00: \$0 Total: \$1,653,070  
 Prin. Invest.: R CLARK  
 Tech. Officer: GSFC/J MALONE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8734 NEW MEXICO HIGHLANDS UNIVERSITY 6594**  
 CCD PHOTOMETRY OF THE VESTA FAMILY OF ASTEROIDS & AN ANALYSIS  
 OF THEIR IMPACT ORIGIN  
 08/26/1999 - 07/31/2001 FY00: \$73,752 Total: \$145,699  
 Prin. Invest.: D V RYAN  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1639 NEW MEXICO HIGHLANDS UNIVERSITY 6595**  
 DEVELOPMENT OF NOVEL THERMOSTABLE PHOTOREFRACTIVE POLY-  
 MERS AND SOL-GEL MATERIALS  
 12/21/1999 - 12/20/2002 FY00: \$113,354 Total: \$113,354  
 Prin. Invest.: R D CLARK, M SANGHADASA  
 Tech. Officer: MSFC/B G PENN  
 CASE Category: 13 - PHYSICS

**NAG 8 1708 NEW MEXICO HIGHLANDS UNIVERSITY 6596**  
 ALLIANCE FOR NONLINEAR OPTICS  
 03/01/2000 - 02/28/2003 FY00: \$500,000 Total: \$500,000  
 Prin. Invest.: R CLARK  
 Tech. Officer: MSFC/W LOVE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 1139 NEW MEXICO HIGHLANDS UNIVERSITY 6597**  
 AMERICAN INDIAN SCIENCE & TECH EDUCATION CONSORTIUM  
 08/31/1999 - 08/30/2001 FY00: \$128,000 Total: \$278,000  
 Prin. Invest.: J C'DE BACA  
 Tech. Officer: JSC/L M ARMENDARIZ  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 9 1168 NEW MEXICO HIGHLANDS UNIVERSITY 6598**  
 JSC ASTROBIOLOGY INSTITUTE  
 09/28/1999 - 09/29/2001 FY00: \$50,000 Total: \$292,100  
 Prin. Invest.: J C DEBACA, J R JUAREZ  
 Tech. Officer: JSC/D S MCKAY, JSC/L ARMENDARIZ  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1195 NEW MEXICO HIGHLANDS UNIVERSITY 6599**  
 REACHING OUT FOR SCIENCE, MATHEMATICS, & TECHNOLOGY STUDENTS  
 05/23/2000 - 05/31/2001 FY00: \$19,528 Total: \$19,528  
 Prin. Invest.: J JUAREZ  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1260 NEW MEXICO HIGHLANDS UNIVERSITY 6600**  
 STUDIES ON THE IMPACT OF CERRO GRANDE & VIVEASH FOREST FIRES  
 09/07/2000 - 12/10/2001 FY00: \$151,095 Total: \$151,095  
 Prin. Invest.: J R JUAREZ  
 Tech. Officer: JSC/G HENDERSEN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1921 NEW MEXICO HIGHLANDS UNIVERSITY 6601**  
 EDUCATIONAL OUTREACH  
 05/23/2000 - 05/31/2001 FY00: \$18,803 Total: \$18,803  
 Prin. Invest.: J R JUAREZ  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1922 NEW MEXICO HIGHLANDS UNIVERSITY 6602**  
 HYDROCODE SIMULATIONS OF PAROUS ASTEROID IMPACTS  
 05/23/2000 - 05/31/2001 FY00: \$24,997 Total: \$24,997  
 Prin. Invest.: J R JUAREZ  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 90069 NEW MEXICO HIGHLANDS UNIVERSITY 6603**  
 AMERICAN INDIAN SCIENCE AND TECHNOLOGY EDUCATION C  
 04/04/1997 - 11/30/2000 FY00: \$1,000,000 Total: \$4,400,822  
 Prin. Invest.: J C'DE BACA  
 Tech. Officer: GSFC/P SAKIMOTO  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4139 NEW MEXICO INSTITUTE OF MINING & TECH 6604**  
 OBSERVATIONS & ANALYSIS OF ATMOSPHERIC HYDROXYL  
 03/17/1997 - 03/14/2001 FY00: \$45,292 Total: \$176,882  
 Prin. Invest.: K MINSCHWANNER  
 Tech. Officer: GSFC/M J KURYLO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7109 NEW MEXICO INSTITUTE OF MINING & TECH 6605**  
 GROUND BASED MEASUREMENTS OF TOTAL OZONE, CLOUD PROPERTIES, AND UVDOSES  
 03/25/1998 - 03/31/2001 FY00: \$36,552 Total: \$107,153  
 Prin. Invest.: D R MINSCHWANNER  
 Tech. Officer: GSFC/J HERMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9326 NEW MEXICO INSTITUTE OF MINING & TECH 6606**  
 INFLUENCE OF LAND-ATMOSPHERE INTERACTIONS ON VARIABILITY OF THE NORTH AMERICAN MONSOON  
 04/03/2000 - 04/30/2001 FY00: \$59,241 Total: \$59,241  
 Prin. Invest.: E E SMALL  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1123 NEW MEXICO INSTITUTE OF MINING & TECH 6607**  
 ANALYSIS OF TOGA COARE LIGHTNING DATA  
 02/22/1995 - 12/19/1999 FY00: \$0 Total: \$65,968  
 Prin. Invest.: M BROOK  
 Tech. Officer: MSFC/R J BLAKESLEE, MSFC/H J CHRISTIAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 9 1106 NEW MEXICO INSTITUTE OF MINING & TECH 6608**  
 THE SEARCH FOR MICROBIAL BIOMARKERS IN TERRESTRIAL DEPOSITS  
 05/10/1999 - 05/09/2004 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: T L KIEFT  
 Tech. Officer: JSC/F K GIBSON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30169 NEW MEXICO INSTITUTE OF MINING & TECH 6609**  
 COMBINED SIMULATION OF ALPINE GLACIERS AND CLOSED-BASIN LAKES: THE KEY TO DETERMINING THE LONG-TERM  
 09/01/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: F M PHILLIPS, PLUMMER  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 11 - ASTRONOMY

**NAG 1 1868 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6610**  
 ACTIVE CONTROL OF AERODYNAMIC NOISE SOURCES MY 1/3  
 09/20/1996 - 11/01/2000 FY00: \$0 Total: \$281,474  
 Prin. Invest.: G A REYNOLDS  
 Tech. Officer: LARC/G S JONES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1334 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6611**  
 XENOPUS INNER EAR ORGAN INFORMATION IN AN ALTERED GRAVITY ENVIRONMENT  
 07/08/1999 - 06/30/2001 FY00: \$99,472 Total: \$199,221  
 Prin. Invest.: E E SERRANO  
 Tech. Officer: ARC/C E WADE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 2 6007 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6612**  
 THEORETICAL & OBSERVATIONAL STUDIES OF SOLAR & EXT RA SOLAR PLANETARY ATMOSPHERES  
 10/16/1996 - 06/30/2001 FY00: \$0 Total: \$288,379  
 Prin. Invest.: M MARLEY  
 Tech. Officer: ARC/C P MCKAY, ARC/A J HATCH  
 CASE Category: 11 - ASTRONOMY

**NAG 2 6030 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6613**  
 CAREER OPPORTUNITIES IN MATHEMATICS, ENGINEERING, TECHNOLOGY, & SCIENCE (COMETS) PROGRAMS  
 03/09/1999 - 03/31/2001 FY00: \$100,000 Total: \$200,001  
 Prin. Invest.: G V GARCIA  
 Tech. Officer: ARC/B J COLLINS, ARC/G S LEE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 2426 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6614**  
 A NEW APPROACH TO MODELLING THE FAR-INFRARED RADIATION IN GALAXIES  
 11/10/1993 - 11/14/1998 FY00: -\$190 Total: \$143,132  
 Prin. Invest.: R A WALTERBOS  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3304 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6615**  
 ANALYSIS OF DATA ON THE ENERGY SPECTRUM AND CHARGE AND ISOTOPIC COMPOSITION OF GALACTIC COSMIC.....  
 07/24/1996 - 09/30/1999 FY00: \$0 Total: \$98,837  
 Prin. Invest.: W R WEBBER  
 Tech. Officer: GSFC/T VON ROSENINGE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 3362 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6616**  
 STUDIES OF ASTROPHYSICAL PLASMAS IN CLUSTERS OF GALAXIES  
 08/28/1996 - 12/31/1998 FY00: -\$9 Total: \$147,768  
 Prin. Invest.: J O BURNS, NONE  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3698 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6617**  
 THE CONTINUATION OF THE BCN GLOBAL GRB RAPID RESPO  
 01/22/1997 - 01/31/1999 FY00: -\$805 Total: \$34,069  
 Prin. Invest.: B J MCNAMARA  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3842 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6618**  
 MODELLING X-RAY CLUSTERS: EVOLUTION AND REALISTIC  
 02/25/1997 - 02/28/2001 FY00: \$0 Total: \$299,540  
 Prin. Invest.: A KLYPIN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4987 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6619**  
 MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT  
 06/26/1997 - 06/14/2001 FY00: \$0 Total: \$127,500  
 Prin. Invest.: D MARLEY  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 5060 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6620**  
 SEARCHING FOR ANTIMATTER AND COSMIC RAY STUDIES USING BESS  
 05/01/1996 - 05/31/2000 FY00: \$0 Total: \$88,318  
 Prin. Invest.: S J STOCHAJ  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5068 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6621**  
 WIZARD-RELATED BALLOON PROGRAM FUNDING FOR THE FIRST YEAR  
 OF THE GRANT  
 05/03/1996 - 05/31/2000 FY00: \$0 Total: \$934,671  
 Prin. Invest.: S J STOCHAJ  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5159 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6622**  
 AN IMAGING SILICON CALORIMETER FOR USE ON ACCESS INCREMENTAL  
 FUNDING FOR FIRST YEAR OF GRANT  
 03/26/1998 - 06/30/2001 FY00: \$22,000 Total: \$209,000  
 Prin. Invest.: S J STOCHAJ  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5226 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6623**  
 FIRST YEAR FUNDING FOR NAG5-5226  
 07/06/1999 - 07/05/2002 FY00: \$135,000 Total: \$285,000  
 Prin. Invest.: S J STOCHAJ  
 Tech. Officer: WSTF/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 6897 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6624**  
 EFFECTS OF RHEOLOGY ON THE DYNAMICS AND EVOLUTION OF MARS  
 AND VENUS  
 01/21/1998 - 12/31/2000 FY00: \$0 Total: \$92,577  
 Prin. Invest.: V SOLOMATOV  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7520 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6625**  
 CENTER FOR TELEMETERING AND TELECOMMUNICATION SYST EMS  
 07/28/1998 - 04/30/2000 FY00: \$0 Total: \$1,344,000  
 Prin. Invest.: S HORAN  
 Tech. Officer: GSFC/W MILLER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 7524 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6626**  
 TRANSPORTATION OF ENERGETIC PARTICLES IN THE GALAXY -  
 APPROVED UNDER NRA 97-OSS-12  
 06/09/1998 - 06/14/2000 FY00: \$11,611 Total: \$23,222  
 Prin. Invest.: W R WEBBER  
 Tech. Officer: GSFC/F C JONES  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7795 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6627**  
 A PROPOSAL TO ASSIST IN THE INTERPRETATION OF DATA FROM THE  
 COSMIC RAY ISOTOPE SPECTROMETER EXPERIM  
 12/10/1998 - 12/31/2000 FY00: \$39,119 Total: \$76,724  
 Prin. Invest.: D R WEBBER  
 Tech. Officer: GSFC/D C LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7904 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6628**  
 ADVANCED IR IMAGING OF SATURN  
 12/03/1998 - 11/30/2000 FY00: \$49,726 Total: \$100,926  
 Prin. Invest.: D J CHANOVER  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8242 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6629**  
 TESTING INFLATION AND DARK MATTER WITH NEW DATA, MODELS, AND  
 METHODS(ATP98)  
 02/19/1999 - 02/28/2001 FY00: \$22,434 Total: \$42,630  
 Prin. Invest.: A KLYPIN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8803 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6630**  
 EFFECTS OF RHEOLOGY ON THE DYNAMICS AND THERMAL EVOLUTION  
 OF MARS AND VENUS  
 01/06/2000 - 01/14/2001 FY00: \$45,600 Total: \$45,600  
 Prin. Invest.: V SOLOMATOV  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 13 - PHYSICS

**NAG 5 8919 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6631**  
 MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT PLANETS  
 AND BROWNDWARFS  
 01/21/2000 - 06/14/2001 FY00: \$71,215 Total: \$71,215  
 Prin. Invest.: M MARLEY  
 Tech. Officer: GSFC/D BOGAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

<p><b>NAG 5 9273 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6632</b>  MODEL ATMOSPHERES AND SPECTRA OF THE L-DWARFS (ATP 99)  03/15/2000 - 03/14/2001 FY00: \$35,943 Total: \$35,943  Prin. Invest.: M S MARLEY  Tech. Officer: GSFC/R J OLIVERSEN  CASE Category: 11 - ASTRONOMY</p>	<p><b>NCC 5 466 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6640</b>  MATHEMATICS AND SCIENCE EDUCATORS FOR THE FUTURE  03/02/2000 - 02/28/2003 FY00: \$191,758 Total: \$191,758  Prin. Invest.: H BAPTISTE  Tech. Officer: GSFC/B WHITE  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 5 9323 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6633</b>  "THE CENTER FOR SPACE TELEMETERING AND TELECOMMUNICATIONS SYSTEMS", AT THE NEW MEXICO STATE UNIVER  03/31/2000 - 04/30/2001 FY00: \$536,000 Total: \$536,000  Prin. Invest.: S HORAN  Tech. Officer: GSFC/W H MILLER  CASE Category: 49 - ENGINEERING, OTHER</p>	<p><b>NGT 5 40061 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6641</b>  TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  03/04/1997 - 01/31/2001 FY00: \$550,000 Total: \$1,958,000  Prin. Invest.: P HYNES  Tech. Officer: HQ/J DASCH  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 8 1710 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6634</b>  NANOMETER LASER SPECTROSCOPY USING FRACTAL MEDIA  03/08/2000 - 03/07/2003 FY00: \$99,998 Total: \$99,998  Prin. Invest.: C YING  Tech. Officer: MSFC/W LOVE  CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>	<p><b>NGT 5 50117 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6642</b>  DIRECT SOLUTION OF LARGE, SPARSE SYSTEMS OF EQUATI  09/06/1997 - 06/30/2000 FY00: \$0 Total: \$64,500  Prin. Invest.: S CASTILLO  Tech. Officer: GSFC/A NURRIDIN  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 9 938 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6635</b>  3D MULTIPHASE - FLOW MODELING OF OXYGEN FLOW SYSTEMS  04/21/1997 - 12/31/1999 FY00: -\$13,059 Total: \$269,605  Prin. Invest.: I H LESLIE  Tech. Officer: JSC/J M STOLTZFUS  CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NAG 9 937 SOUTHWESTERN INDIAN POLYTECHNIC INSTITUTE 6643</b>  SIPI PACE/MSET PROGRAM  04/09/1997 - 04/08/2000 FY00: \$0 Total: \$300,000  Prin. Invest.: J A JOHNSON  Tech. Officer: JSC/L M ARMENDARIZ  CASE Category: 79 - SOCIAL SCIENCE, OTHER</p>
<p><b>NAS 5 32252 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6636</b>  SOUNDING ROCKET ENGINEERING SUPPORT  04/21/1995 - 04/30/2000 FY00: -\$110,824 Total: \$12,085,817  Prin. Invest.: A BAKER  Tech. Officer: GSFC/N SCHULTZ  CASE Category: 45 - ELECTRICAL ENGR</p>	<p><b>NAG 1 2018 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6644</b>  SIMULATION OF FLOW CONTROL USING DEFORMABLE SURFACES  03/17/1998 - 03/16/2001 FY00: \$99,988 Total: \$299,944  Prin. Invest.: C R TRUMAN  Tech. Officer: LARC/R D JOSLIN  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAS 5 98009 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6637</b>  BALLOON SERVICES  02/17/1998 - 02/28/2003 FY00: \$12,821,918 Total: \$41,042,347  Prin. Invest.: N APPLICABLE  Tech. Officer: WFF/R S NOCK, WFF/B A MERRITT  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 2 1196 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6645</b>  NASA CENTER FOR AUTONOMOUS CONTROL ENGINEERING (AC ) AT THE U/NM  03/26/1998 - 12/14/2000 FY00: \$552,297 Total: \$3,434,241  Prin. Invest.: M JAMSHIDI, R LUMIA  Tech. Officer: ARC/G S LEE  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NCC 2 1002 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6638</b>  COCKPIT INTERRUPTIONS, DISTRACTIONS, &amp; RECOVERY - A STUDY OF MEMORY &amp; DIVIDED ATTENTION IN THE ....  07/29/1997 - 06/30/2000 FY00: \$0 Total: \$157,231  Prin. Invest.: G E YOUNG  Tech. Officer: ARC/R K DISMUKES  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 2 1437 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6646</b>  CHARACTERIZATION &amp; ANALYSIS OF ADVANCED THERMAL PROTECTION MATERIALS  09/13/2000 - 08/14/2001 FY00: \$59,996 Total: \$59,996  Prin. Invest.: R E LOEHMAN  Tech. Officer: ARC/R R DIFIORE, ARC/S M JOHNSON  CASE Category: 47 - METAL &amp; MATERIALS ENGR</p>
<p><b>NCC 5 422 NEW MEXICO STATE UNIVERSITY - LAS CRUCES 6639</b>  SIMULATIONS OF EXTENSIVE AIRCRAFTS USING BEOWULF- CLASS SYSTEMS  09/30/1999 - 08/31/2001 FY00: \$58,000 Total: \$134,453  Prin. Invest.: S STOCHAJ  Tech. Officer: GSFC/R E STREITMATTER  CASE Category: 22 - COMPUTER SCIENCE</p>	<p><b>NAG 3 1976 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6647</b>  NEW PHENOMENA IN STRONGLY COUNTERFLOWING HE-II  10/22/1996 - 09/30/2001 FY00: \$89,000 Total: \$285,000  Prin. Invest.: S T BOYD, R V DUNCAN, M J ADVIAANS  Tech. Officer: GRC/B S SINGH  CASE Category: 13 - PHYSICS</p>



**NAG 3 2322 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6648**  
 ACCURATE BOUNDARY CONDITIONS FOR COMPUTATIONAL AERODYNAMICS  
 01/18/2000 - 01/03/2001 FY00: \$86,532 Total: \$86,532  
 Prin. Invest.: D HAGSTROM  
 Tech. Officer: GRC/J GOODRICH  
 CASE Category: 21 - MATHEMATICS

**NAG 5 4253 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6649**  
 MICROBEAM STUDIES OF PLANETARY MATERIALS/SUPPORT F TION MICROSCOPE  
 04/01/1997 - 12/14/1999 FY00: \$0 Total: \$745,000  
 Prin. Invest.: D J PAPIKE  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 12 - CHEMISTRY

**NAG 5 4441 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6650**  
 PETROLOGY OF PRESOLAR DUST AND ALTERATION IN CHOND  
 04/28/1997 - 03/31/2001 FY00: \$108,000 Total: \$438,000  
 Prin. Invest.: D J RIETMEIJER  
 Tech. Officer: GSFC/J M BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4619 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6651**  
 METEORITES AND SMALL PRIMITIVE SOLAR SYSTEM BODIES  
 05/20/1997 - 05/14/2001 FY00: \$0 Total: \$100,000  
 Prin. Invest.: D J BREARLEY  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4935 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6652**  
 MICROSTRUCTURAL STUDIES BEARING ON THE ORIGIN OF C ASSOCIATED MINERALS IN MARTIAN METEORITE ALH 8400  
 06/23/1997 - 06/30/2000 FY00: \$0 Total: \$78,000  
 Prin. Invest.: A J BREARLEY  
 Tech. Officer: GSFC/J M BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6105 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6653**  
 DECIPHERING SULFUR ISOTOPIC SYSTEMATICS AS A POTENTIAL  
 07/24/1997 - 01/31/1999 FY00: -\$402 Total: \$48,598  
 Prin. Invest.: C SHEARER  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6739 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6654**  
 THE X-RAY PROPERTIES OF RICH CLUSTERS FROM Z=0-0.2 USING THE ROSATALL-SKY-SURVEY  
 12/19/1997 - 12/31/2000 FY00: \$59,840 Total: \$160,040  
 Prin. Invest.: M LEDLOW  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6999 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6655**  
 RIPARIAN ECOSYSTEM RESTORATION: EFFECTS OF FLOODING AND VEGETATION TYPE ON ANNUAL EVAPOTRANSPIRATION  
 02/17/1998 - 02/14/2001 FY00: \$0 Total: \$700,000  
 Prin. Invest.: C N DAHM  
 Tech. Officer: GSFC/A C JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7006 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6656**  
 GRANT TITLE: "HIGH PERFORMANCE IMAGE PROCESSOR FOR SPACE" GSFC#5-3358.  
 02/17/1998 - 04/14/2001 FY00: \$0 Total: \$325,000  
 Prin. Invest.: G MAKI  
 Tech. Officer: GSFC/W H MILLER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7360 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6657**  
 TITLE: "CULPRIT". GSFC CONTROL #5-3394, (4/1/98 THRU 9/30/98) FIRST YEAR FUNDS FOR THE UNSOLICIT  
 05/15/1998 - 05/14/2001 FY00: \$471,423 Total: \$1,197,864  
 Prin. Invest.: G MAKI, NONE  
 Tech. Officer: GSFC/W H MILLER  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 7586 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6658**  
 HIGH PERFORMANCE DATA COMPRESSION VLSI ARCHITECTURES  
 07/09/1998 - 04/30/1999 FY00: -\$12 Total: \$328,988  
 Prin. Invest.: G MAKI  
 Tech. Officer: GSFC/W H MILLER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 8392 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6659**  
 "RADIATION TOLERANT VLSI", GSFC CONTROL #3437.  
 03/05/1999 - 03/14/2000 FY00: \$0 Total: \$1,093,831  
 Prin. Invest.: G MAKI  
 Tech. Officer: GSFC/W H MILLER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 8454 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6660**  
 HIGH PERFORMANCE DATA COMPRESSION VLSI ARCHITECTURE; GSFC CONTROL NO. 3474  
 04/20/1999 - 04/30/2001 FY00: \$0 Total: \$460,000  
 Prin. Invest.: G MAKI  
 Tech. Officer: GSFC/W H MILLER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 8804 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6661**  
 MARTIN IMPACT CRATER HYDROTHERMAL SYSTEMS, CLUES FROM THE LONAR CRATER, INDIA.  
 01/06/2000 - 01/14/2001 FY00: \$23,845 Total: \$23,845  
 Prin. Invest.: H NEWSOM  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 8821 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6662**  
 BIOMIMETIC SELF-ASSEMBLY OF HARDENED (NACRE-LIKE) COMPOSITE COATINGS FOR TRANSHAB  
 09/21/1999 - 08/31/2000 FY00: \$62,097 Total: \$250,184  
 Prin. Invest.: J BRINKER  
 Tech. Officer: GSFC/R CROUCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9152 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6663**  
 ULTRA-LOW POWER RADIATION TOLERANT CMOS VLSI  
 03/07/2000 - 03/14/2001 FY00: \$1,237,600 Total: \$1,237,600  
 Prin. Invest.: G MAKI  
 Tech. Officer: GSFC/W H MILLER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 9402 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6664**  
 "BIT PLANE ENCODER/DECODER FOR HPDC", FOR THE UNIV ERSITY OF  
 NEW MEXICO, CONTROL #5-3524.  
 04/25/2000 - 04/14/2001 FY00: \$300,000 Total: \$300,000  
*Prin. Invest.:* G MAKI *Prin. Invest.:* NONE  
*Tech. Officer:* GSFC/W H MILLER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 9463 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6665**  
 MICROBEAM STUDIES OF PLANETARY MATERIALS  
 04/18/2000 - 02/14/2003 FY00: \$233,000 Total: \$233,000  
*Prin. Invest.:* J J PAPIKE  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9469 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6666**  
 RECONFIGURABLE DATA PATH PROCESSOR  
 04/17/2000 - 04/14/2001 FY00: \$240,000 Total: \$240,000  
*Prin. Invest.:* G DONOHUE  
*Tech. Officer:* GSFC/P YEH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 9704 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6667**  
 SOFTWARE DEVELOPMENT ENVIRONMENT FOR A RECONFIGURA BLE  
 PROCESSOR  
 06/22/2000 - 07/31/2001 FY00: \$260,000 Total: \$260,000  
*Prin. Invest.:* G W DONOHUE  
*Tech. Officer:* GSFC/W H MILLER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 9798 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6668**  
 FORMATION AND ALTERATION HISTORIES OF CHONDRITIC MATERIAL  
 07/13/2000 - 06/30/2001 FY00: \$80,000 Total: \$80,000  
*Prin. Invest.:* A BREARLEY, NONE  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9993 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6669**  
 VLSI ARCHITECTURE FOR 8PSK-TRELLIS CODED MODULA TION  
 09/14/2000 - 09/14/2001 FY00: \$25,000 Total: \$25,000  
*Prin. Invest.:* G K MAKI  
*Tech. Officer:* GSFC/W H MILLER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 8 1606 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6670**  
 R/S INTEGRATED OPTOELECTRONIC COMPONENTS FOR SPACE APPLICA-  
 TIONS  
 03/12/1999 - 09/01/1999 FY00: \$0 Total: \$82,813  
*Prin. Invest.:* M OSINSKI, NONE  
*Tech. Officer:* MSFC/M WATSON  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1684 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6671**  
 RESEARCH  
 06/01/2000 - 05/31/2003 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* M OSINSKI  
*Tech. Officer:* MSFC/M D WATSON  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 9 995 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6672**  
 DESIGN & DEVELOP INTELLIGENT BIOMIMETIC ROBOTS  
 03/12/1998 - 07/30/2001 FY00: \$100,000 Total: \$300,000  
*Prin. Invest.:* M SHAHINPOOR  
*Tech. Officer:* JSC/K KRISHEN  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 9 1017 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6673**  
 STIMULUS FOR STUDENTS TO STUDY PRE COLLEGE MATH  
 05/28/1998 - 07/21/2001 FY00: \$99,634 Total: \$297,351  
*Prin. Invest.:* H E NEWSOM  
*Tech. Officer:* JSC/L ARMENDARIZ  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1042 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6674**  
 1998 NASA TRAINING PROJECT  
 07/01/1998 - 06/30/2000 FY00: \$450,200 Total: \$1,350,600  
*Prin. Invest.:* J D TORRES  
*Tech. Officer:* JSC/L ARMENDARIZ  
*CASE Category:* 11 - ASTRONOMY

**NAG 9 1111 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6675**  
 INSTITUTE FOR THE STUDY OF BIOMARKERS IN ASTROMATERIALS  
 05/14/1999 - 05/13/2001 FY00: \$50,000 Total: \$100,000  
*Prin. Invest.:* J J PAPIKE  
*Tech. Officer:* JSC/E K GIBSON  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAS 3 00103 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6676**  
 MULTIPLE PR'S FOR THIS ACTION: 132514,132514F BREAKTHROUGH  
 PROPULSION PHYSICS  
 01/19/2000 - 01/19/2001 FY00: \$90,381 Total: \$90,381  
*Prin. Invest.:* K J MALLOY  
*Tech. Officer:* GRC/M G MILLIS  
*CASE Category:* 13 - PHYSICS

**NCC 2 5345 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6677**  
 TELEMEDICINE VIRTUAL COLLABORATORY  
 08/16/1999 - 10/31/2000 FY00: \$15,000 Total: \$71,551  
*Prin. Invest.:* D ALVERSON  
*Tech. Officer:* ARC/K A SOUZA, ARC/B P DALTON  
*CASE Category:* 56 - MEDICL

**NCC 5 309 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6678**  
 PERFORMING A REGIONAL ASSESSMENT & PROTOTYPING INTERNET  
 ACCESSIBLE MTPE PRODUCTS TO THE UPPER RIO  
 04/09/1998 - 02/28/2001 FY00: \$739,295 Total: \$1,685,732  
*Prin. Invest.:* S MORAIN  
*Tech. Officer:* GSFC/A TUYAHOV  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 350 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6679**  
 PREPARATION FOR UNVIERSITY OF STUDENTS IN UNDEGRAD UATE  
 EDUCATION  
 07/01/1998 - 07/31/2003 FY00: \$100,000 Total: \$1,099,626  
*Prin. Invest.:* M JAMSHIDI  
*Tech. Officer:* HQ/B WHITE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCCW 87 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6680**  
 CENTER FOR AUTONOMOUS CONTROL ENGINEERING  
 08/04/1995 - 03/31/1999 FY00: -\$968 Total: \$2,880,830  
 Prin. Invest.: T L COLEMAN  
 Tech. Officer: HQ/B L WHITE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC13 98002 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6681**  
 AFFILIATED RESEARCH CENTER PROGRAM-COMMERCIAL RE- MOTE  
 SENSING PARTNERSHIPS WITH INDUSTRY  
 08/11/1998 - 08/10/2001 FY00: \$150,000 Total: \$350,000  
 Prin. Invest.: P HOPKINS, S A MORAIN  
 Tech. Officer: SSC/H CARR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30227 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6682**  
 CLIMATIC WATER BALANCE AND THE DYNAMICS OF PINYON- JUNIPER  
 09/19/2000 - 08/31/2001 FY00: \$14,000 Total: \$14,000  
 Prin. Invest.: B MILNE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 9 31 UNIVERSITY OF NEW MEXICO-ALBUQUERQUE 6683**  
 TRAINING GRANT  
 06/03/1998 - 08/01/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: C D HERD  
 Tech. Officer: JSC/J H JONES, JSC/D SICKORREZ  
 CASE Category: 32 - GEOLOGICAL SCIENCE

## NEW YORK

**NAG 5 6956 BARNARD COLLEGE 6684**  
 THE SPECTRA OF BL LAC OBJECTS BETWEEN GEV AND TEV ENERGIES  
 02/06/1998 - 01/31/2000 FY00: \$0 Total: \$13,946  
 Prin. Invest.: R MUKHERJEE  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7341 BARNARD COLLEGE 6685**  
 STUDY OF THE CORRELATED MULTIWAVELENGTH VARIABILITY OF PKS  
 0528+134  
 05/28/1998 - 01/31/2000 FY00: \$0 Total: \$21,994  
 Prin. Invest.: R MUKHERJEE  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NCC 2 963 BROOKLYN COLLEGE 6686**  
 BRAIN-PITUITARY AXIS DEVELOPMENT IN THE C.E.B.A.S. MINI-MODULE  
 08/07/1996 - 12/31/1999 FY00: \$0 Total: \$358,102  
 Prin. Invest.: M P SCHREIBMAN  
 Tech. Officer: ARC/D A REISS-BUBENHEIM, ARC/W E HINDS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 7473 CAYUGA COUNTY COMMUNITY COLLEGE 6687**  
 DEFINING EARTH SYSTEM ENTERPRISE INFO NEEDS & PILOT PROGRAMS  
 FOR UTILIZATION BY LOCAL GOVERNMENT  
 06/15/1998 - 06/14/2000 FY00: \$0 Total: \$3,450,000  
 Prin. Invest.: R BROWN  
 Tech. Officer: GSFC/W CAMPBELL  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG13 00043 CAYUGA COUNTY COMMUNITY COLLEGE 6688**  
 SPATIAL INFORMATION TECHNOLOGY CENTER AT FULTON MONTGOMERY  
 COMMUNITY COLLEGE  
 09/27/2000 - 09/26/2001 FY00: \$992,500 Total: \$992,500  
 Prin. Invest.: R FRESTOPKIK  
 Tech. Officer: SSC/D POWE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG13 00044 CAYUGA COUNTY COMMUNITY COLLEGE 6689**  
 PHASE III: DEPLOYING ESE PILOT INFORMATION PROGRAMS FOR STATE &  
 LOCAL GOVERNMENT IN THE NORTHEAST  
 09/27/2000 - 09/26/2001 FY00: \$9,110,000 Total: \$9,110,000  
 Prin. Invest.: R BROWER  
 Tech. Officer: SSC/M MICK  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2288 CITY UNIV OF NY HERBERT H. LEHMAN COLL 6690**  
 MATHEMATICS, SCIENCE AND TECHNOLOGY WITH EXCELLENCE IN  
 RESEARCH: A SCIENCE AND TECHNOLOGY ENTRY PR  
 05/17/1999 - 06/30/2002 FY00: \$140,000 Total: \$200,000  
 Prin. Invest.: A L ROTHSETIN  
 Tech. Officer: GRC/R F LAWRENCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6085 CITY UNIV OF NY HERBERT H. LEHMAN COLL 6691**  
 PACE/MSET AWARD  
 09/03/1997 - 06/30/1999 FY00: \$0 Total: \$200,000  
 Prin. Invest.: A L ROTHSTEIN  
 Tech. Officer: HQ/M STOUSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2057 CITY UNIV. OF NY HOSTOS COMMUNITY COLL 6692**  
 HOSTOS EARLY LEARNING COMMUNITIES  
 08/19/1997 - 10/31/1999 FY00: \$0 Total: \$150,000  
 Prin. Invest.: G MELENDEZ-DELANEY  
 Tech. Officer: GRC/D CENTENO-GOMEZ  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 1 1913 CITY UNIV COLLEGE OF NEW YORK YORK COLL 6693**  
 USING THE SCIENCE OF EVERYDAY OBJECTS TO TEACH SCIENCE A  
 DISSEMINATION PLAN  
 04/03/1997 - 09/02/1999 FY00: \$0 Total: \$30,001  
 Prin. Invest.: J M SCHLEIN  
 Tech. Officer: LARC/R A HATHAWAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7532 CITY UNIV COLLEGE OF NEW YORK YORK COLL 6694**  
 LET'S DO SCIENCE  
 06/11/1998 - 05/31/2001 FY00: \$199,095 Total: \$583,704  
 Prin. Invest.: J SCHLEIN  
 Tech. Officer: GSFC/M STOUTSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2028 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6695**  
 EIGENSTRUCTURE ASSIGNMENT FOR FAULT TOLERANT FLIGHT CONTROL  
 DESIGN  
 03/09/1998 - 01/31/2001 FY00: \$99,692 Total: \$298,796  
 Prin. Invest.: K SOBEL  
 Tech. Officer: LARC/S M JOSHI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2259 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6696**  
 IRA (INSTITUTIONAL RESEARCH AWARD) PROGRAM TRANSFER  
 NAGW5-6952  
 01/19/2000 - 11/30/2002 FY00: \$830,000 Total: \$830,000  
 Prin. Invest.: R A ALFANO  
 Tech. Officer: LARC/N P BARNES, LARC/J C BARNES  
 CASE Category: 13 - PHYSICS

**NAG 3 1836 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6697**  
 MOLECULAR DYNAMICS OF FLUID-SOLID SYSTEM  
 04/19/1996 - 04/30/2000 FY00: \$82,000 Total: \$600,000  
 Prin. Invest.: J KOPLIK, J BANAVAR  
 Tech. Officer: GRC/B SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 2074 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6698**  
 PICOSECOND GATED OPTICAL IMAGING OF DENSE FUEL SPRAYS  
 09/17/1997 - 07/15/2001 FY00: \$199,324 Total: \$299,322  
 Prin. Invest.: P P HO  
 Tech. Officer: GRC/K J BREISACHER, GRC/L LIU  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2163 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6699**  
 HIGH RESOLUTION EXPERIMENTS OF COMPRESSIBLE TURBULENCE  
 INTERACTING WITH EXPANSION OR SHOCK WAVES  
 08/24/1998 - 04/05/2001 FY00: \$100,000 Total: \$300,000  
 Prin. Invest.: Y ANDREPOPOULOS  
 Tech. Officer: GRC/D O DAVIS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2167 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6700**  
 USING SURFACTANTS TO ENHANCE THERMOCAPILLARY MIGRATION OF  
 BUBBLES & DROPS & FACILITATE DROP SPREAD  
 05/26/1998 - 04/12/2001 FY00: \$114,869 Total: \$239,824  
 Prin. Invest.: C MALDARELLI, R BALASUBRAMANIAN  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 2258 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6701**  
 SCIENCE AND TECHNOLOGY TEACHERS FOR THE NEXT MILLENNIUM  
 PHASE II (MASTAP)  
 05/03/1999 - 03/22/2002 FY00: \$200,000 Total: \$400,000  
 Prin. Invest.: L P JOHNSON  
 Tech. Officer: GRC/R F LAWRENCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2259 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6702**  
 ULTRASONIC ASSESSMENT OF IMPACT-INDUCED DAMAGE AND MICRO-  
 CRACKING IN POLYMER MATRIX COMPOSITES  
 05/05/1999 - 01/26/2002 FY00: \$0 Total: \$100,000  
 Prin. Invest.: B LIU  
 Tech. Officer: GRC/K J BOWLES  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2335 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6703**  
 MOLECULAR DYNAMICS OF FLUID-SOLID SYSTEMS MOLECULAR  
 DYNAMICS OF FLUID-SOLID SYSTEMS  
 02/17/2000 - 11/30/2003 FY00: \$25,086 Total: \$25,086  
 Prin. Invest.: D KOPLIK  
 Tech. Officer: GRC/F P CHIARMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3476 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6704**  
 CUNY COLLABORATIVE MASTAP SUMMER INSTITUTE  
 11/18/1996 - 12/30/1998 FY00: -\$5 Total: \$196,941  
 Prin. Invest.: J SCHLEIN  
 Tech. Officer: GSFC/M MATEU  
 CASE Category: 21 - MATHEMATICS

**NAG 5 4019 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6705**  
 CONTINUATION OF GRANT  
 03/03/1997 - 11/30/2000 FY00: \$0 Total: \$300,000  
 Prin. Invest.: D AKINS  
 Tech. Officer: GSFC/S GLICKER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4911 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6706**  
 ADVANCING MINORITIES IN SCIENCE AND ENGINEERING ED  
 07/16/1997 - 05/31/2001 FY00: \$157,608 Total: \$633,325  
 Prin. Invest.: J BARBA  
 Tech. Officer: GSFC/M MATEU  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6952 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6707**  
 TUNABLE SOLID STATE LASERS AND OPTICAL IMAGING  
 02/02/1998 - 11/30/1999 FY00: \$0 Total: \$1,901,253  
 Prin. Invest.: R R ALFANO  
 Tech. Officer: GSFC/J MALONE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7129 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6708**  
 ROBUST ALGORITHMS FOR IMAGE REGISTRATION  
 03/11/1998 - 09/30/2001 FY00: \$100,000 Total: \$300,000  
 Prin. Invest.: G WOLBERG  
 Tech. Officer: GSFC/J TILTON  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 7160 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6709**  
 HIGH DENSITY SOLID STATE MEMORIES  
 03/11/1998 - 03/14/2001 FY00: \$99,545 Total: \$294,347  
 Prin. Invest.: K SHUM  
 Tech. Officer: GSFC/H SHAW  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 7827 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6710**  
 WINDS, WATER BUDGETS, AND STABLE ISOTOPES IN TROPICAL  
 CYCLONES USING TRMM AND QUICKSCAT  
 12/14/1998 - 12/14/2000 FY00: \$67,544 Total: \$137,008  
 Prin. Invest.: S GEDZELMAN  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9732 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6711**  
 THE STUDENT POLARIMETER AEROSOL & CLOUD EXPERIMENT (SPACE)  
 06/20/2000 - 06/30/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: F MOSHARY  
 Tech. Officer: GSFC/C PERSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 3 607 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6712**  
 THE SYNERGISM OF ELECTORRHEOLOGICAL RESPONSE, DIELECTROPHORESIS AND SHEAR-INDUCED DIFFUSION IN FLOW  
 04/07/1998 - 01/31/2002 FY00: \$75,000 Total: \$225,000  
 Prin. Invest.: A ACRIVOS  
 Tech. Officer: GRC/F D CHIARAMONTE  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 5 98 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6713**  
 AN URBAN COLLABORATION FOR NETWORK CONNECTIVITY AND INTERNET ACCESS  
 09/13/1995 - 11/14/2000 FY00: \$352,500 Total: \$2,423,500  
 Prin. Invest.: S AUSTIN  
 Tech. Officer: GSFC/J HARRINGTON  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 5 206 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6714**  
 PRESERVATION OF THE ENVIRONMENT THROUGH EDUCATION SENSING OF THE ATMOSPHERE AND OF LAND-USE/LAND-CO  
 06/17/1997 - 05/31/1999 FY00: -\$3,110 Total: \$396,890  
 Prin. Invest.: R KHANBILVARDI  
 Tech. Officer: GSFC/A A LACIS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 343 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6715**  
 COOPERATIVE RESEARCH & EDUCATION PROGRAM: INSTITUTE ON CLIMATE AND PLANETS  
 06/23/1998 - 12/31/2000 FY00: \$0 Total: \$782,194  
 Prin. Invest.: N A PARKER  
 Tech. Officer: GSFC/L TRAVIS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 344 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6716**  
 INTEGRATION OF RESEARCH AND EDUCATION IN REMOTE SENSING AND ENVIRONMENTAL CLIMATE RESEARCH  
 07/15/1998 - 06/30/2001 FY00: \$500,000 Total: \$1,500,000  
 Prin. Invest.: R KHANBILVARDI  
 Tech. Officer: HQ/B WHITE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 378 CITY UNIVERSITY OF NEW YORK CITY COLLEGE 6717**  
 SUCCESSION TO 5-129, RESEARCH IN GLOBAL CLIMATE VARIABILITY  
 01/25/1999 - 06/30/2000 FY00: \$0 Total: \$262,679  
 Prin. Invest.: N PARKER  
 Tech. Officer: GSFC/B CARLSON  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1423 CITY UNIVERSITY OF NEW YORK SYSTEM 6718**  
 R/S OBJECTIVE OPERATIONAL UTILIZATION OF SATELLITE MICROWAVE SCATTEROMETER OBSERVATION OF TROPICAL  
 01/01/1998 - 12/31/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: W J PIERSON  
 Tech. Officer: MSFC/J SIMMONDS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 129 CITY UNIVERSITY OF NEW YORK SYSTEM 6719**  
 RESEARCH IN GLOBAL CLIMATE VARIABILITY  
 01/18/1996 - 12/31/1998 FY00: -\$14,726 Total: \$595,274  
 Prin. Invest.: N A PARKER  
 Tech. Officer: GSFC/B E CARLSON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 3 1891 CLARKSON UNIVERSITY 6720**  
 ABSOLUTE AND CONVECTIVE INSTABILITY AND SPLITTING OF A LIQUID  
 05/30/1996 - 05/31/2001 FY00: \$34,000 Total: \$344,000  
 Prin. Invest.: S P LIN  
 Tech. Officer: GRC/M E HILL  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2393 CLARKSON UNIVERSITY 6721**  
 QUANTIFICATION OF ENERGY RELEASE IN COMPOSITE STRUCTURES  
 04/18/2000 - 05/31/2001 FY00: \$49,529 Total: \$49,529  
 Prin. Invest.: D MINNETYAN  
 Tech. Officer: GRC/C C CHAMIS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2394 CLARKSON UNIVERSITY 6722**  
 TEST-FREE FRACTURE TOUGHNESS, REF. #00169 TEST-FREE FRACTURE TOUGHNESS, REF. #00169  
 04/18/2000 - 05/31/2001 FY00: \$50,554 Total: \$50,554  
 Prin. Invest.: D MINNETYAN  
 Tech. Officer: GRC/C C CHAMIS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1266 CLARKSON UNIVERSITY 6723**  
 USE OF MICROGRAVITY TO CONTROL THE MICROSTRUCTURE OF EUTECTICS  
 05/01/1996 - 04/30/2001 FY00: \$56,250 Total: \$540,000  
 Prin. Invest.: W R WILCOX, L L REGEL  
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1482 CLARKSON UNIVERSITY 6724**  
 R/S IMPROVED CRYSTAL QUALITY BY DETACHED SOLIDIFICATION IN MICROGRAVITY  
 02/12/1998 - 01/31/2002 FY00: \$95,000 Total: \$250,167  
 Prin. Invest.: L L REGEL  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1703 CLARKSON UNIVERSITY 6725**  
 RESIDUAL GAS EFFECTS ON DETACHED SOLIDIFICATION IN MICROGRAVITY  
 06/22/2000 - 11/28/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: W R WILCOX  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 12 - CHEMISTRY

**NCC 1 325 CLARKSON UNIVERSITY 6726**  
 JET MIXING ENHANCEMENT BY FEEDBACK CONTROL  
 12/30/1998 - 12/31/1999 FY00: \$0 Total: \$50,000  
 Prin. Invest.: M N GLAUSER  
 Tech. Officer: LARC/M K PONTON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 1 52102 CLARKSON UNIVERSITY 6727**  
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)  
 06/13/1995 - 06/30/1999 FY00: -\$2,667 Total: \$85,334  
 Prin. Invest.: M GLAUSER, S D STOKES  
 Tech. Officer: LARC/W L SELLERS, LARC/T B GATSKI  
 CASE Category: 41 - AERONAUTICAL ENGR

<p><b>NGT 1 52214</b>                      <b>CLARKSON UNIVERSITY</b>                      <b>6728</b>  GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) YEAR 1  06/10/1999 - 06/30/2001                      FY00: \$22,000                      Total: \$32,000  Prin. Invest.: M N GLAUSER  Tech. Officer: LARC/C S YAO  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 2987</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6736</b>  SCALE-SPACE (WAVELET) ANALYSIS OF TOPOGRAPHY, AND ITS USE IN UNDERSTANDING THE EVOLUTION OF ETC.....  06/30/1995 - 06/30/2000                      FY00: \$0                      Total: \$277,894  Prin. Invest.: J WEISSEL  Tech. Officer: GSFC/H V FREY  CASE Category: 32 - GEOLOGICAL SCIENCE</p>
<p><b>NGT 1 52222</b>                      <b>CLARKSON UNIVERSITY</b>                      <b>6729</b>  GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  06/29/1999 - 06/30/2001                      FY00: \$30,001                      Total: \$40,001  Prin. Invest.: R F SCHMITT, M GLAUSER  Tech. Officer: LARC/J JUANG, LARC/L HORTA  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 3229</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6737</b>  THE NEW X-RAY/GAMMA-RAY PULSARS  05/15/1996 - 12/14/2000                      FY00: \$0                      Total: \$360,000  Prin. Invest.: J P HAIPERN  Tech. Officer: GSFC/D WEST  CASE Category: 11 - ASTRONOMY</p>
<p><b>NGT 8 52849</b>                      <b>CLARKSON UNIVERSITY</b>                      <b>6730</b>  MICROGRAVITY EQUIPMENT VIBRATIONS: A SENSITIVITY AND CONTROL STUDY  07/21/1998 - 08/13/2001                      FY00: \$0                      Total: \$44,000  Prin. Invest.: G AHMADI  Tech. Officer: MSFC/J DOWDY  CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NAG 5 3502</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6738</b>  SN 1987A: FORMATION OF A SUPERNOVA REMNANT  12/11/1996 - 12/14/2000                      FY00: \$139,600                      Total: \$408,200  Prin. Invest.: A P CROTTS  Tech. Officer: GSFC/D K WEST  CASE Category: 11 - ASTRONOMY</p>
<p><b>NGT 8 52853</b>                      <b>CLARKSON UNIVERSITY</b>                      <b>6731</b>  COMPUTATIONAL MODELING OF FUEL SPRAY FORMATION IN ROCKET ENGINES  07/21/1998 - 08/13/2001                      FY00: \$22,000                      Total: \$66,000  Prin. Invest.: G AHMADI  Tech. Officer: MSFC/J F DOWDY  CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NAG 5 4028</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6739</b>  MODELLING SOUTH PACIFIC OCEAN INTERACTIONS IN THE  03/13/1997 - 02/28/2001                      FY00: \$0                      Total: \$261,592  Prin. Invest.: D M HOLLAND  Tech. Officer: GSFC/R H THOMAS  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 2 1185</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6732</b>  EFFECTS OF SPACE FLIGHT-ASSOCIATED STIMULI ON DEVELOPMENT OF MURINE &amp; MEDAKA SENSORY-MOTOR SYSTEMS  03/23/1998 - 09/30/1999                      FY00: \$0                      Total: \$52,312  Prin. Invest.: D J WOLGEMUTH  Tech. Officer: ARC/C A MITCHELL  CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>	<p><b>NAG 5 4052</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6740</b>  MODELING OF DISTRIBUTION AND INTERANNUAL TO INTER- DECADEAL VARIATION OF AEROSOLS  02/26/1997 - 02/29/2000                      FY00: -\$39,894                      Total: \$316,631  Prin. Invest.: I TEGEN  Tech. Officer: GSFC/D RIND  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 2 1345</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6733</b>  DEVELOPMENT &amp; FUNCTION OF THE MOUSE VESTIBULAR SYSTEM IN THE ABSENCE OF GRAVITY PERCEPTION  07/16/1999 - 01/14/2001                      FY00: \$173,220                      Total: \$258,145  Prin. Invest.: D J WOLGEMUTH  Tech. Officer: ARC/M M AVRENER, ARC/G C JAHN  CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>	<p><b>NAG 5 4058</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6741</b>  IMPACTS OF INTERANNUAL VARIABILITY ON AGRO ECOSYSTEMS AND FISHERIES  03/26/1997 - 12/31/2000                      FY00: \$120,000                      Total: \$360,000  Prin. Invest.: M CANE  Tech. Officer: GSFC/C ROSENZWEIG  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 618</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6734</b>  X-RAY ASTRONOMY  02/01/1983 - 06/30/2001                      FY00: \$0                      Total: \$8,461,663  Prin. Invest.: R NOVICK, W H-M KU, M VARTANIAN  Tech. Officer: GSFC/L J EARLY, GSFC/R H PLESS  CASE Category: 13 - PHYSICS</p>	<p><b>NAG 5 4649</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6742</b>  EARLY DIFFERENTIATION OF THE MOON: EXPERIMENTAL AND  06/11/1997 - 05/31/2001                      FY00: \$159,000                      Total: \$549,000  Prin. Invest.: D LONGHI  Tech. Officer: GSFC/D NAVA  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 2556</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6735</b>  NEW STARBURST GALAXIES WITH EXTREME X-RAY LUMINOSITIES &amp; THROUGH THE GAS DARKLY: AN UNOBSERVED.....  03/10/1994 - 09/30/1999                      FY00: -\$188                      Total: \$106,316  Prin. Invest.: D J HELFAND  Tech. Officer: GSFC/N WHITE  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 4971</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6743</b>  PHOTOCHEMISTRY OF METHANE IN MODEL ATMOSPHERES OF  06/23/1997 - 06/14/2000                      FY00: \$0                      Total: \$225,000  Prin. Invest.: D BERSOHN  Tech. Officer: GSFC/R BEEBEE  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>

**NAG 5 5106** **COLUMBIA UNIVERSITY** **6744**  
 LXEGRIT: A LIQUID XENON GAMMA-RAY IMAGING TELE- SCOPE FOR HIGH  
 ENERGY ASTROPHYSICS  
 02/11/1997 - 05/31/2000 FY00: -\$160,882 Total: \$1,261,000  
 Prin. Invest.: E APRILE  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5119** **COLUMBIA UNIVERSITY** **6745**  
 REFUGIT OF THE GAMMA-RAY ARCINUTE TELESCOPE IMAGING  
 SYSTEM (GRATIS) PAYLOAD  
 04/09/1997 - 11/30/1999 FY00: \$0 Total: \$46,969  
 Prin. Invest.: C HALLEY  
 Tech. Officer: GSFC/H NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 5123** **COLUMBIA UNIVERSITY** **6746**  
 X-RAY SPECTROSCOPIC LABORATORY EXPERIMENTS IN SUPPORT OF  
 THE NASA X-RAY ASTRONOMY PROGRAM  
 02/20/1997 - 05/31/2003 FY00: \$73,560 Total: \$623,160  
 Prin. Invest.: S M KAHN  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5129** **COLUMBIA UNIVERSITY** **6747**  
 HIGH ENERGY FOCUSING TELESCOPE FUNDING FOR THE FIRST YEAR OF  
 THE GRANT.  
 07/01/1997 - 03/31/2000 FY00: \$70,000 Total: \$885,300  
 Prin. Invest.: C HAILEY  
 Tech. Officer: GSFC/H NEEDLEMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 5247** **COLUMBIA UNIVERSITY** **6748**  
 GRANT NAG5-5247 RAIN INDUCED AIR-WATER GAS EXCH. PI DR.  
 SCHLOSSER  
 04/01/1999 - 03/28/2001 FY00: \$5,000 Total: \$10,000  
 Prin. Invest.: P SCHLOSSER  
 Tech. Officer: GSFC/F BLIVEN  
 CASE Category: 13 - PHYSICS

**NAG 5 5254** **COLUMBIA UNIVERSITY** **6749**  
 HIGH-PERFORMANCE MULTILAYER COATINGS FOR THE NEXT GENERA-  
 TION OF HIGH-RESOLUTION X-RAY OPTICS  
 02/22/2000 - 02/03/2003 FY00: \$185,000 Total: \$185,000  
 Prin. Invest.: D L WINDT  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 3260** **COLUMBIA UNIVERSITY** **6750**  
 THERMALLY-FORMED GALASS OPTICS FOR X-RAY AND GAMMA-RAY  
 MISSIONS  
 02/18/2000 - 02/10/2003 FY00: \$179,000 Total: \$179,000  
 Prin. Invest.: C J HAILEY  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 5261** **COLUMBIA UNIVERSITY** **6751**  
 MEASUREMENTS, CALCULATIONS, AND ASTROPHYSICAL IMPLICATIONS  
 OF NEW LOW TEMPERATURE DIELECTRONIC  
 02/11/2000 - 02/10/2003 FY00: \$113,040 Total: \$113,040  
 Prin. Invest.: D W SAVIN  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5275** **COLUMBIA UNIVERSITY** **6752**  
 FUNDING FOR PHASE 1 OF SPACE PROJECT FUNDING FOR PHASE 1 OF  
 SPACE PROJECT  
 04/17/2000 - 04/13/2006 FY00: \$299,510 Total: \$299,510  
 Prin. Invest.: B CAIRNS  
 Tech. Officer: GSFC/D L PIERCE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 5280** **COLUMBIA UNIVERSITY** **6753**  
 DEVELOPMENT OF XENON TIME PROJECTION CHAMBERS FOR PRECISDE  
 COMPTON IMAGING OF ASTROPHYSICAL LINES  
 05/31/2000 - 12/31/2002 FY00: \$367,500 Total: \$367,500  
 Prin. Invest.: E APRILE  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6035** **COLUMBIA UNIVERSITY** **6754**  
 SURFING THE HIGH DENSITY UNIVERSE  
 10/03/1997 - 09/30/2000 FY00: \$0 Total: \$349,100  
 Prin. Invest.: D HELFAND  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6240** **COLUMBIA UNIVERSITY** **6755**  
 DETERMINATION OF RADIATIVE EFFECTS OF CONTRAILS AN  
 09/15/1997 - 08/31/2000 FY00: \$0 Total: \$117,482  
 Prin. Invest.: A MACKE  
 Tech. Officer: GSFC/R W STEWART  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6294** **COLUMBIA UNIVERSITY** **6756**  
 DEVELOP A UNIQUE SHARED RESEARCH FACILITY IN WHICH FOCUS ON  
 THE CHANGING ATMOSPHER  
 09/15/1997 - 08/14/2000 FY00: \$0 Total: \$225,000  
 Prin. Invest.: W BROECKER  
 Tech. Officer: GSFC/M KHAZENIE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6315** **COLUMBIA UNIVERSITY** **6757**  
 MODELING STUDIES OF THE EFFECTS OF WINDS AND HEAT TROPICAL  
 OCEAN  
 09/19/1997 - 03/31/2000 FY00: \$0 Total: \$291,359  
 Prin. Invest.: R SEAGER  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6321** **COLUMBIA UNIVERSITY** **6758**  
 THE BIO-ATMOSPHERIC CYCLES OF NITROGEN AND CARBON: POLLUTION  
 AND TERRESTRIAL ECOSYSTEMS  
 09/09/1997 - 04/30/2001 FY00: \$24,603 Total: \$123,985  
 Prin. Invest.: E MATTHEWS  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

<p><b>NAG 5 6450</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6759</b>  PRODUCTION AND ANALYSIS OF GLOBAL WAVE AND PHOTOSYNTHETICALLY ACTIVE SURFACE IRRADIANCE FIELDS U  10/31/1997 - 09/30/2001                      FY00: \$110,000                      Total: \$485,933  Prin. Invest.: J A BISHOP  Tech. Officer: GSFC/J A MARRA  CASE Category: 33 - OCEANOGRAPHY</p>	<p><b>NAG 5 7461</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6766</b>  POLYNYAS, PREDATORS AND PACK ICE VARIABILITY IN THE SOUTHERN OCEAN  10/26/1998 - 12/31/2001                      FY00: \$43,461                      Total: \$158,370  Prin. Invest.: S S JACOBS  Tech. Officer: GSFC/S GOGINENI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 6876</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6760</b>  INFLUENCE OF ARCTIC SEA ICE ON NATURAL AND ANTHROPOGENICALLY-INDUCED CLIMATE VARIABILITY  01/30/1998 - 03/31/2001                      FY00: \$122,350                      Total: \$235,200  Prin. Invest.: D G MARTINSON  Tech. Officer: GSFC/S GOGINENI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7673</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6767</b>  CORE ANGULAR MOMENTUM AND THE IERS COORDINATING CENTER/SUB-CENTERS ACTIVITY FOR MONITORING GLOBAL  09/03/1998 - 08/31/1999                      FY00: -\$39,200                      Total: \$800  Prin. Invest.: X SONG  Tech. Officer: GSFC/B F CHAO  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 5 6877</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6761</b>  MONSOONS, TIDAL MIXING AND PRODUCTIVITY IN THE BAN DA SEA, INDONESIA  02/10/1998 - 12/31/2000                      FY00: \$166,179                      Total: \$554,232  Prin. Invest.: T TAKAHASHI  Tech. Officer: GSFC/J MARRA  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7687</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6768</b>  SURFACE SOLAR RADIATION SOLAR BASE  09/17/1998 - 08/31/2001                      FY00: \$133,000                      Total: \$233,000  Prin. Invest.: G KUKLA  Tech. Officer: GSFC/M I MISHCHENKO  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 5 6948</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6762</b>  MTPE: GLOBAL OCEAN-ATMOSPHERE INTERACTIONS FORCED BY TIDAL MIXING OF SST  02/24/1998 - 12/31/2000                      FY00: \$0                      Total: \$127,651  Prin. Invest.: A L FIELD  Tech. Officer: GSFC/E LINDSTROM  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7688</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6769</b>  GLOBAL CHANGE RESEARCH INFORMATION OFFICE  09/11/1998 - 09/30/2000                      FY00: \$0                      Total: \$607,982  Prin. Invest.: R MILLER  Tech. Officer: GSFC/D KAHLE  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 7044</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6763</b>  ASSESSING CURRENT AND POTENTIAL USE OF CLIMATE FORCASTS FOR COMMUNAL FARM MANAGEMENT IN ZIMBABWE  03/05/1998 - 02/29/2000                      FY00: \$0                      Total: \$77,502  Prin. Invest.: M A CANE  Tech. Officer: GSFC/D RIND  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7737</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6770</b>  SCIENCE AND CALIBRATION SUPPORT FOR THE REFLECTING GRATING SPECTROMETER ON THE X-RAY MULTI-MIRROR M  10/01/1998 - 09/30/2000                      FY00: \$918,750                      Total: \$1,028,750  Prin. Invest.: S M KAHN  Tech. Officer: GSFC/N E WHITE  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 7138</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6764</b>  MIDDLEWORLD TRANSPORT WITHIN THREE-DIMENSIONAL MODES: CHARACTERIZATION &amp; SENSITIVITIES TO MODEL F  05/06/1998 - 03/31/2001                      FY00: \$39,338                      Total: \$126,408  Prin. Invest.: T HALL  Tech. Officer: GSFC/R W STEWART  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 5 7740</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6771</b>  XTE A03 PROPOSAL - RECONSIDERING THE NATURE OF THE NEUTRON STARCANDIDATE IN RCW 103  10/28/1998 - 10/31/2000                      FY00: \$0                      Total: \$9,401  Prin. Invest.: E GOTTHELF  Tech. Officer: GSFC/J SWANK  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 7261</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6765</b>  ASCA PROPOSAL - SPECTROSCOPIC OBSERVATIONS OF STEEP SPECTRUM NARROWLINE SEYFERT GALAXIES  04/15/1998 - 06/30/1999                      FY00: -\$96                      Total: \$15,004  Prin. Invest.: K M LEIGHLY  Tech. Officer: GSFC/N WHITE  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7814</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6772</b>  NEW ASCA AND ROSAT OBSERVATIONS OF ROTATION-POWERED PULSARS - ADP 98  12/03/1998 - 12/14/2000                      FY00: \$32,000                      Total: \$72,728  Prin. Invest.: J P HALPERN  Tech. Officer: GSFC/D K WEST  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 7846</b>                      <b>COLUMBIA UNIVERSITY</b>                      <b>6773</b>  CONSOLIDATING CYGNUS REGION 1.809 MEV EMISSION  11/25/1998 - 05/31/2000                      FY00: \$0                      Total: \$5,000  Prin. Invest.: U OBERLACK  Tech. Officer: GSFC/J P NORRIS  CASE Category: 11 - ASTRONOMY</p>	



<b>NAG 5 7922</b> <b>COLUMBIA UNIVERSITY</b> <b>6774</b> EFFECT OF HISTORICAL AND PROJECTED CLIMATE CHANGE ON SOUTHERN OCEAN SEA ICE AND ANTARCTIC MASSBALAN 12/21/1998 - 12/31/2000 FY00: \$54,000 Total: \$93,000 Prin. Invest.: D MARTINSON Tech. Officer: GSFC/S GOGINENI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 8808</b> <b>COLUMBIA UNIVERSITY</b> <b>6782</b> US GLOBAL CHANGE RESEARCH INFORMATION OFFICE (GCRI O) 09/08/1999 - 09/30/2000 FY00: \$250,000 Total: \$350,000 Prin. Invest.: R MILLER Tech. Officer: GSFC/D KAHLE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 7935</b> <b>COLUMBIA UNIVERSITY</b> <b>6775</b> THE NATURE OF RADIO-QUIET X-RAY PULSARS IN SUPERNOVA REMNANTS (LTSA-98) 12/14/1998 - 12/31/2000 FY00: \$112,948 Total: \$221,789 Prin. Invest.: E V GOTTHELF Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY	<b>NAG 5 8848</b> <b>COLUMBIA UNIVERSITY</b> <b>6783</b> FIRST YEAR FUNDING FOR SENH99-0121, LANDSLIDE MECHANISMS & HAZARD ASSESSMENT IN MOUNTAIN REGIONS 12/16/1999 - 12/31/2000 FY00: \$167,587 Total: \$167,587 Prin. Invest.: J K WEISSEL Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 7971</b> <b>COLUMBIA UNIVERSITY</b> <b>6776</b> NARROW-LINE SEYFERT 1 GALAXIES (LTSA 98) 12/22/1998 - 09/14/2000 FY00: \$72,498 Total: \$142,207 Prin. Invest.: K M LEIGHLY Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY	<b>NAG 5 8854</b> <b>COLUMBIA UNIVERSITY</b> <b>6784</b> ASSIST IN DEVELOPING A THEORETICAL MATHEMATICAL MODEL FOR THE EXISTING WFF BALLOON LAUNCH TRAIN AND 11/01/1999 - 10/31/2000 FY00: \$10,000 Total: \$10,000 Prin. Invest.: B CRAIG Tech. Officer: GSFC/T GRUNER CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 5 7977</b> <b>COLUMBIA UNIVERSITY</b> <b>6777</b> ACCRETION RATES IN CATAclysmic VARIABLES (ADP98) 12/23/1998 - 12/31/2000 FY00: \$54,453 Total: \$106,810 Prin. Invest.: J O PATTERSON Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY	<b>NAG 5 8957</b> <b>COLUMBIA UNIVERSITY</b> <b>6785</b> FAR UV SPECTROSCOPY OF NARROW-LINE SEYFERT 1 GALAXY RE 1034+39 - FUSE 01/24/2000 - 07/31/2000 FY00: \$0 Total: \$0 Prin. Invest.: K M LEIGHLY Tech. Officer: GSFC/G SONNEBORN CASE Category: 11 - ASTRONOMY
<b>NAG 5 8297</b> <b>COLUMBIA UNIVERSITY</b> <b>6778</b> VARIABILITY OF SEA LEVEL WITHIN THE INDONESIAN SEAS AND ITS RELA- TION- SHIP TO INTEROCEAN THROUGHF 02/23/1999 - 02/28/2001 FY00: \$110,337 Total: \$205,158 Prin. Invest.: A L GORDON Tech. Officer: GSFC/E LINDSTROM CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 9056</b> <b>COLUMBIA UNIVERSITY</b> <b>6786</b> CONTINENT-WIDE ESTIMATION AND CALIBRATION OF CATCHMENT HYDROLOGIC PARAMETERS USING SRTM AND LASER 02/15/2000 - 02/28/2001 FY00: \$24,750 Total: \$24,750 Prin. Invest.: C P STARK Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 8506</b> <b>COLUMBIA UNIVERSITY</b> <b>6779</b> COSMOLOGY AND PARTICLE ASTROPHYSICS THEORY (ATP - 98) 05/10/1999 - 04/30/2000 FY00: -\$44,257 Total: \$30,743 Prin. Invest.: M P KAMIONKOWSKI Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY	<b>NAG 5 9060</b> <b>COLUMBIA UNIVERSITY</b> <b>6787</b> IMPROVED ESTIMATES OF ANTARCTIC ICE SHEET VOLUME BASED ON INVERSION OF GRAVITY DATA & OTHER POTENTIAL 02/10/2000 - 02/14/2001 FY00: \$66,750 Total: \$66,750 Prin. Invest.: R E BELL Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 8675</b> <b>COLUMBIA UNIVERSITY</b> <b>6780</b> HYDRODYNAMIC INSTABILITIES AND EDDY-MEAN FLOW INTERACTION IN THE SOUTHERN OCEAN 07/08/1999 - 07/14/2001 FY00: \$88,462 Total: \$200,590 Prin. Invest.: D L WITTER Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 9094</b> <b>COLUMBIA UNIVERSITY</b> <b>6788</b> TESTING FOR X-RAY PERIODICITIES IN SEYFERT GALAXIES - ADP 99 02/18/2000 - 02/28/2001 FY00: \$29,652 Total: \$29,652 Prin. Invest.: J P HALPERN Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY
<b>NAG 5 8725</b> <b>COLUMBIA UNIVERSITY</b> <b>6781</b> SEASONAL AND INTERANNUAL VARIABILITY OF AIR-SEA-ICE COUPLING PROCESSES IN THE SUBPOLAR SOUTHERN OCEAN 08/04/1999 - 08/31/2001 FY00: \$72,287 Total: \$141,838 Prin. Invest.: X YUAN Tech. Officer: GSFC/E LINDSTROM CASE Category: 99 - MULTIDISCIPL, OTHER	<b>NAG 5 9095</b> <b>COLUMBIA UNIVERSITY</b> <b>6789</b> ASCA OBSERVATIONS OF HIGH-ENERGY GAMMA-RAY SOURCES -ADP 99 02/18/2000 - 02/28/2001 FY00: \$57,411 Total: \$57,411 Prin. Invest.: J P HALPERN Tech. Officer: GSFC/R J OLIVERSEN CASE Category: 11 - ASTRONOMY

**NAG 5 9136 COLUMBIA UNIVERSITY 6790**  
 ON THE EVOLUTION OF YOUNG NEUTRON STARS: ANOMALOUS COMPACT  
 OBJECTS WITHIN SUPERNOVA REMNANTS  
 03/01/2000 - 02/28/2001 FY00: \$50,440 Total: \$50,440  
 Prin. Invest.: E V GOTTHELF  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9137 COLUMBIA UNIVERSITY 6791**  
 X-RAY SPECTRAL & VARIABILITY STUDIES OF AGN ADP 99  
 03/01/2000 - 04/14/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: K M LEIGHLY  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9581 COLUMBIA UNIVERSITY 6792**  
 UNRAVELING THE PHYSICAL CONDITIONS IN THE SOLAR AT MOSPHERE:  
 EXPERIMENTAL AND THEORETICAL RATES FOR  
 05/09/2000 - 04/30/2003 FY00: \$74,869 Total: \$74,869  
 Prin. Invest.: D W SAVIN  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9615 COLUMBIA UNIVERSITY 6793**  
 HIGH-PERFORMANCE MULTILAYER X-RAY OPTICS FOR SOLAR PHYSICS  
 05/23/2000 - 04/30/2001 FY00: \$51,377 Total: \$51,377  
 Prin. Invest.: D WINDT  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 5 9653 COLUMBIA UNIVERSITY 6794**  
 CONSOLIDATING THE VELA-REGION 1.809 MEV RESULTS  
 05/30/2000 - 05/31/2001 FY00: \$6,500 Total: \$6,500  
 Prin. Invest.: U OBERLACK  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9759 COLUMBIA UNIVERSITY 6795**  
 ASSIMILATION OF REMOTELY SENSED SNOW OBSERVATIONS INTO THE  
 NSIPP LAND SURFACE MODEL  
 06/26/2000 - 06/30/2001 FY00: \$45,501 Total: \$45,501  
 Prin. Invest.: M STIEGLITZ  
 Tech. Officer: GSFC/P R HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9870 COLUMBIA UNIVERSITY 6796**  
 SURVEYING THE GALACTIC PLANE WITH XMM  
 09/29/2000 - 09/30/2001 FY00: \$31,000 Total: \$31,000  
 Prin. Invest.: D HELFAND  
 Tech. Officer: GSFC/P ATKINS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9898 COLUMBIA UNIVERSITY 6797**  
 THE NATURE OF ISOLATED NEUTRON STARS AND THE EQUATION OF  
 STATE AT SUPRA-NUCLEAR DENSITY  
 09/08/2000 - 09/14/2001 FY00: \$8,500 Total: \$8,500  
 Prin. Invest.: F B PAERELS  
 Tech. Officer: GSFC/R F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9911 COLUMBIA UNIVERSITY 6798**  
 AN ULTRA-MAGNETIZED X-RAY PULSAR IN THE SUPERNOVA REMNANT  
 KES 73  
 09/05/2000 - 09/30/2001 FY00: \$14,000 Total: \$14,000  
 Prin. Invest.: E V GOTTHELF  
 Tech. Officer: GSFC/R M MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9928 COLUMBIA UNIVERSITY 6799**  
 COMPOSITE SUPERNOVA REMNANTS: HOME TO THE YOUNGEST  
 NEUTRON STARS  
 09/07/2000 - 09/14/2001 FY00: \$23,459 Total: \$23,459  
 Prin. Invest.: D J HELFAND  
 Tech. Officer: GSFC/D F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9929 COLUMBIA UNIVERSITY 6800**  
 AN X-RAY SPECTROSCOPIC DETERMINATION OF THE HUBBLE CONSTANT  
 09/07/2000 - 09/14/2001 FY00: \$24,619 Total: \$24,619  
 Prin. Invest.: F B PAERLES  
 Tech. Officer: GSFC/D F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9946 COLUMBIA UNIVERSITY 6801**  
 TAKING THE PULSE OF OUR YOUNGEST NEIGHBORHOOD NEUTRON STAR  
 09/06/2000 - 09/14/2001 FY00: \$17,900 Total: \$17,900  
 Prin. Invest.: D J HELFAND  
 Tech. Officer: GSFC/R F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9950 COLUMBIA UNIVERSITY 6802**  
 A POSSIBLE IDENTIFICATION OF THE EGRET SOURCE 2EG J2227+6122  
 09/07/2000 - 08/31/2001 FY00: \$16,662 Total: \$16,662  
 Prin. Invest.: J P HALPERN  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 1148 COLUMBIA UNIVERSITY 6803**  
 INDIVIDUAL SUSCEPTIBILITY TO RADIATION EFFECTS  
 09/14/1999 - 12/13/2002 FY00: \$336,974 Total: \$336,974  
 Prin. Invest.: E J HALL  
 Tech. Officer: JSC/F A CUCINOTTA  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAS 5 97184 COLUMBIA UNIVERSITY 6804**  
 ACRIM SCIENCE TEAM  
 04/21/1997 - 04/20/2002 FY00: \$423,980 Total: \$1,465,980  
 Prin. Invest.: R C WILSON  
 Tech. Officer: GSFC/V GRIFFIN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAS 5 98037 COLUMBIA UNIVERSITY 6805**  
 CONSTELLATION X-RAY MISSION  
 06/22/1998 - 12/15/2001 FY00: \$100,000 Total: \$342,000  
 Prin. Invest.: S M KAHN  
 Tech. Officer: GSFC/J GRADY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAS 5 98162 COLUMBIA UNIVERSITY 6806**  
 EOSDIS SEDAC  
 07/01/1998 - 06/30/2003 FY00: \$3,145,000 Total: \$6,916,114  
 Prin. Invest.: R S CHEN  
 Tech. Officer: GSFC/Q BARKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 218 COLUMBIA UNIVERSITY 6807**  
 SEASONAL-TO-INTERANNUAL PREDICTION PROJECT  
 07/21/1997 - 06/30/2001 FY00: \$0 Total: \$220,892  
 Prin. Invest.: M STIEGLITZ  
 Tech. Officer: GSFC/R KOSTER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 225 COLUMBIA UNIVERSITY 6808**  
 THE EFFECTS OF RAINFALL ON SEASONAL TO INTERANNUAL TROPICAL OCEANS AND COUPLED CLIMATE PREDICTABILITY  
 08/13/1997 - 08/14/1999 FY00: \$0 Total: \$73,930  
 Prin. Invest.: D CHEN  
 Tech. Officer: GSFC/A J BUSALACCHI  
 CASE Category: 33 - OCEANOGRAPHY

**NCC 5 270 COLUMBIA UNIVERSITY 6809**  
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH  
 02/17/1998 - 04/30/2000 FY00: \$467,462 Total: \$3,781,639  
 Prin. Invest.: L M DRUYAN  
 Tech. Officer: GSFC/A LACIS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 271 COLUMBIA UNIVERSITY 6810**  
 MODELING OF OCEAN CIRCULATION AND ATMOSPHERIC CHEMICAL SYSTEMS  
 02/19/1998 - 06/30/2000 FY00: \$0 Total: \$2,316,801  
 Prin. Invest.: C K CHU  
 Tech. Officer: GSFC/R B STOTHERS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 278 COLUMBIA UNIVERSITY 6811**  
 MODELLING OF ATMOSPHERIC CIRCULATION AND CHEMISTRY -GSFC CONTROL NO.5-3357  
 05/28/1998 - 02/28/2001 FY00: \$0 Total: \$373,065  
 Prin. Invest.: L POLVANI, NONE  
 Tech. Officer: GSFC/R STOTHERS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 328 COLUMBIA UNIVERSITY 6812**  
 INTERDISCIPLINARY RESEARCH ON CLIMATE VARIABILITY AND THE IMPACTS ASSOCIATED WITH REGIONAL CLIMATE C  
 06/05/1998 - 12/31/2000 FY00: \$286,524 Total: \$2,082,031  
 Prin. Invest.: M A CHANDLER  
 Tech. Officer: GSFC/D RIND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 469 COLUMBIA UNIVERSITY 6813**  
 MODELING OF ATMOSPHERIC CIRCULATION AND CHEMISTRY  
 03/09/2000 - 03/14/2001 FY00: \$259,591 Total: \$259,591  
 Prin. Invest.: L POLVANI  
 Tech. Officer: GSFC/R STOTHERS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 470 COLUMBIA UNIVERSITY 6814**  
 THE INSTITUTE ON CLIMATE AND PLANETS (ICP): A RESEARCH EDUCATION PROGRAM  
 03/09/2000 - 11/30/2000 FY00: \$268,397 Total: \$268,397  
 Prin. Invest.: C HARRIS  
 Tech. Officer: GSFC/B CARLSON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 473 COLUMBIA UNIVERSITY 6815**  
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH.  
 03/15/2000 - 12/31/2000 FY00: \$411,375 Total: \$411,375  
 Prin. Invest.: L DRUYAN  
 Tech. Officer: GSFC/A LACIS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 485 COLUMBIA UNIVERSITY 6816**  
 MODELING OF OCEAN CIRCULATION AND ATMOSPHERIC CHEMICAL SYSTEMS.  
 03/30/2000 - 03/31/2001 FY00: \$932,052 Total: \$932,052  
 Prin. Invest.: C K CHU  
 Tech. Officer: GSFC/R B STOTHERS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 505 COLUMBIA UNIVERSITY 6817**  
 INTERDISCIPLINARY RESEARCH ON CLIMATE VARIABILITY AND CLIMATE CHANGE  
 07/21/2000 - 07/31/2001 FY00: \$76,201 Total: \$76,201  
 Prin. Invest.: M CHANDLER  
 Tech. Officer: GSFC/D RIND  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 510 COLUMBIA UNIVERSITY 6818**  
 LAND SURFACE MODEL DEVELOPMENT FOR THE NASA SEASONAL TO INTERANNUAL PREDICTION PROJECT  
 08/21/2000 - 08/14/2001 FY00: \$54,809 Total: \$54,809  
 Prin. Invest.: M STIEGLITZ  
 Tech. Officer: GSFC/R KOSTER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 44 COLUMBIA UNIVERSITY 6819**  
 RADIATIVE LINKS TO POLAR DYNAMICAL PROCESSES  
 06/23/1997 - 06/30/2000 FY00: \$0 Total: \$86,000  
 Prin. Invest.: A D DELGENIO  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 5 30016 COLUMBIA UNIVERSITY 6820**  
 INTERANNUAL SST VARIABILITY OF THE TROPICAL WESTER FROM CORAL SR/CA PROXY RECORDS FOR THE LAST 1000  
 10/23/1996 - 08/31/1999 FY00: \$0 Total: \$60,600  
 Prin. Invest.: B P SCHLOSSER  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 33 - OCEANOGRAPHY

**NGT 5 30106 COLUMBIA UNIVERSITY 6821**  
 RAIN INDUCED AIR-WATER GAS EXCHANGE: MECHANISMS AND GLOBAL EFFECTS  
 10/24/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D SCHLOSSER  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

<b>NGT 5 30123</b> <b>COLUMBIA UNIVERSITY</b> <b>6822</b> AN INTERMEDIATE-LEVEL MODEL FOR THE TROPICAL ATMOS 09/30/1997 - 08/31/2000                      FY00: \$0                      Total: \$66,000 <i>Prin. Invest.:</i> M CANE <i>Tech. Officer:</i> GSFC/M WEI <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 1 2069</b> <b>CORNELL UNIVERSITY</b> <b>6830</b> BASIC RESEARCH IN CRACK GROWTH PREDICTION METHOD LOGIES 05/20/1998 - 06/30/2000                      FY00: \$0                      Total: \$173,472 <i>Prin. Invest.:</i> A R INGRAFFEA, P A WAWRZYNEK <i>Tech. Officer:</i> LARC/J C NEWMAN, JR., LARC/I S RAJU <i>CASE Category:</i> 46 - MECHANICAL ENGR
<b>NGT 5 30167</b> <b>COLUMBIA UNIVERSITY</b> <b>6823</b> VARIABILITY OF BIOGEOCHEMICAL REGIMES IN THE ROSS SEA: AN ANALYSIS USING HIGH RESOLUTION SEA SURFACE 09/02/1998 - 08/31/2001                      FY00: \$22,000                      Total: \$86,000 <i>Prin. Invest.:</i> T TAKAHASHI <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 1 2268</b> <b>CORNELL UNIVERSITY</b> <b>6831</b> CRACK TURNING AND DAMAGE TOLERANCE OF MONOLITHIC STRUCTURES 02/03/2000 - 06/15/2000                      FY00: \$25,225                      Total: \$25,225 <i>Prin. Invest.:</i> R PETTIT, A INGRAFFEA <i>Tech. Officer:</i> LARC/J C NEWMAN/D R AMBUR <i>CASE Category:</i> 47 - METAL & MATERIALS ENGR
<b>NGT 5 30226</b> <b>COLUMBIA UNIVERSITY</b> <b>6824</b> HIGH RESOLUTION MILLENNIAL SCALE HISTORY OF HUDSON VALLEY, NY FORESTS: CLIMATE & ENVIRONMENTAL INFL 09/19/2000 - 08/31/2001                      FY00: \$22,000                      Total: \$22,000 <i>Prin. Invest.:</i> D PETEET <i>Tech. Officer:</i> GSFC/M WEI <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 2 893</b> <b>CORNELL UNIVERSITY</b> <b>6832</b> FORMAL SUPPORT FOR HIGH ASSURANCE SYSTEMS 04/06/1994 - 03/31/2000                      FY00: \$0                      Total: \$632,751 <i>Prin. Invest.:</i> F B SCHNEIDER <i>Tech. Officer:</i> ARC/S LAU <i>CASE Category:</i> 22 - COMPUTER SCIENCE
<b>NGT 5 50152</b> <b>COLUMBIA UNIVERSITY</b> <b>6825</b> THE DEVELOPMENT OF THE REFLECTION GRATING SPECTROMATRY AND ITS APPLICATION TO THE STUDY OF ACCRETION 09/11/1997 - 09/30/2000                      FY00: \$0                      Total: \$65,596 <i>Prin. Invest.:</i> S KAHN <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 2 1145</b> <b>CORNELL UNIVERSITY</b> <b>6833</b> EVALUATION OF LOW BACKGROUND HIGH PERFORMANCE SIBY DETECTORS 07/22/1997 - 05/31/2000                      FY00: \$0                      Total: \$84,422 <i>Prin. Invest.:</i> T L HERTER <i>Tech. Officer:</i> ARC/C R MCCREIGHT, ARC/R E MCMURRAY <i>CASE Category:</i> 11 - ASTRONOMY
<b>NGT 5 50158</b> <b>COLUMBIA UNIVERSITY</b> <b>6826</b> ARC MINUTE GAMMA-RAY IMAGING OF CENTAURUS A 09/11/1997 - 06/30/2000                      FY00: \$0                      Total: \$65,596 <i>Prin. Invest.:</i> C HAILEY <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 3 1451</b> <b>CORNELL UNIVERSITY</b> <b>6834</b> NUMERICAL MODELING OF LOW-DENSITY PLUMES USING A MONTE CARLO TECHNIQUE 03/12/1993 - 11/30/1999                      FY00: \$0                      Total: \$383,593 <i>Prin. Invest.:</i> I D BOYD <i>Tech. Officer:</i> GRC/P F PENKO <i>CASE Category:</i> 13 - PHYSICS
<b>NGT 5 50184</b> <b>COLUMBIA UNIVERSITY</b> <b>6827</b> THEORETICAL STUDY OF DARK MATTER SIGNATURES IN EGRET AND GLAST 05/27/1998 - 06/30/2000                      FY00: \$0                      Total: \$43,876 <i>Prin. Invest.:</i> M KAMIONKOWSKI <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 13 - PHYSICS	<b>NAG 3 1791</b> <b>CORNELL UNIVERSITY</b> <b>6835</b> MULTICOMPONENT DROPLET COMBUSTION IN MICROGRAVITY SOOT FORMATION, EMULSION, METAL-BASE ADDITIVES AND 09/27/1995 - 09/25/1999                      FY00: \$0                      Total: \$260,000 <i>Prin. Invest.:</i> C T AVEDISIAN <i>Tech. Officer:</i> GRC/R O COLANTONIO <i>CASE Category:</i> 49 - ENGINEERING, OTHER
<b>NGT 5 50323</b> <b>COLUMBIA UNIVERSITY</b> <b>6828</b> PREDICTION OF MOSQUITO ABUNDANCE WITH A LAND SURFACE HYDROLOGY MODEL & LANDSAT THERMAL MAPPER IMA 08/17/2000 - 08/31/2001                      FY00: \$22,000                      Total: \$22,000 <i>Prin. Invest.:</i> M CANE <i>Tech. Officer:</i> GSFC/M WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 3 1854</b> <b>CORNELL UNIVERSITY</b> <b>6836</b> STABILITY OF SHAPE HELD BY SURFACE TENSION AND SUBJECTED TO FLOW 05/01/1996 - 04/30/2001                      FY00: \$32,998                      Total: \$425,007 <i>Prin. Invest.:</i> P H STEEN <i>Tech. Officer:</i> GRC/B S SINGH <i>CASE Category:</i> 43 - CHEMICAL ENGR
<b>NAG 1 2013</b> <b>CORNELL UNIVERSITY</b> <b>6829</b> CRACK TURNING AND ARREST MECHANISMS FOR INTEGRAL STRUCTURES 03/03/1998 - 12/31/1999                      FY00: \$0                      Total: \$78,842 <i>Prin. Invest.:</i> R PETTIT <i>Tech. Officer:</i> LARC/P B BOGERT, LARC/J H STARNES, JR. <i>CASE Category:</i> 46 - MECHANICAL ENGR	<b>NAG 3 1993</b> <b>CORNELL UNIVERSITY</b> <b>6837</b> SIMULATION OF CRACK GROWTH IN SPIRAL-BEVEL GEARS 12/11/1996 - 01/11/2001                      FY00: \$69,941                      Total: \$289,961 <i>Prin. Invest.:</i> A R INGRAFFEA <i>Tech. Officer:</i> GRC/D G LOWICKI <i>CASE Category:</i> 46 - MECHANICAL ENGR

**NAG 3 2112** **CORNELL UNIVERSITY** **6838**  
 STUDIES OF GAS-PARTICLE INTERACTIONS IN A MICROGRAVITY FLOW CELL  
 01/15/1998 - 12/31/2001 FY00: \$218,978 Total: \$443,968  
*Prin. Invest.:* M LOUGE  
*Tech. Officer:* GRC/R HAKIMAZADEH  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2224** **CORNELL UNIVERSITY** **6839**  
 HIGH PRESSURE COMBUSTION OF AN UNSUPPORTED SOOTING FUEL DROPLET IN MICROGRAVITY  
 01/12/1999 - 11/11/2002 FY00: \$44,820 Total: \$140,489  
*Prin. Invest.:* T AVEDISIAN  
*Tech. Officer:* GRC/D L DIETRICH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2253** **CORNELL UNIVERSITY** **6840**  
 INTERNATIONAL WORKSHOP ON DUNE FORMATION AND MIGRATION  
 04/05/1999 - 07/18/1999 FY00: -\$4,976 Total: \$7,774  
*Prin. Invest.:* J T JENKINS  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2349** **CORNELL UNIVERSITY** **6841**  
 TURBULENCE-INDUCED COALESCENCE OF AEROSOL PARTICLE S  
 03/23/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* D L KOCH  
*Tech. Officer:* GRC/H K NAHRA  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2353** **CORNELL UNIVERSITY** **6842**  
 SHEET FLOWS, AVALANCHES, AND DUNE EVOLUTION ON EARTH AND MARS  
 03/14/2000 - 11/30/2003 FY00: \$44,240 Total: \$44,240  
*Prin. Invest.:* D T JENKINS  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2440** **CORNELL UNIVERSITY** **6843**  
 RAPIDLY SHEARED BUBBLY SUSPENSION RAPIDLY SHEARED BUBBLY SUSPENSION  
 05/31/2000 - 04/30/2005 FY00: \$140,000 Total: \$140,000  
*Prin. Invest.:* D L KOCH  
*Tech. Officer:* GRC/H K NAHRA  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 3097** **CORNELL UNIVERSITY** **6844**  
 THEORETICAL PHYSICS OF X-RAY AND GAMMA-RAY EMISSION FROM MAGNETIZED NEUTRON STARS  
 10/10/1995 - 10/14/1999 FY00: \$0 Total: \$192,000  
*Prin. Invest.:* I M WASSERMAN  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3347** **CORNELL UNIVERSITY** **6845**  
 ISO DATA ANALYSIS SUPPORT  
 08/12/1996 - 08/14/2000 FY00: \$0 Total: \$456,764  
*Prin. Invest.:* G J STACEY  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3427** **CORNELL UNIVERSITY** **6846**  
 DEVELOPMENT AND APPLICATION OF NEW TOOLS FOR STATISTICAL DISCRETE ASTROPHYSICAL DATA  
 09/26/1996 - 09/30/2001 FY00: \$110,400 Total: \$522,253  
*Prin. Invest.:* T J LOREDO  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3515** **CORNELL UNIVERSITY** **6847**  
 MULTIWAVELENGTH STUDIES OF SPIN-DRIVEN PULSARS  
 01/22/1997 - 01/31/2000 FY00: \$0 Total: \$55,000  
*Prin. Invest.:* J M CORDES  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3626** **CORNELL UNIVERSITY** **6848**  
 PHYSICAL STUDIES OF PLANETARY AND SATELLITE SURFACE  
 02/12/1997 - 10/31/2000 FY00: \$73,150 Total: \$434,150  
*Prin. Invest.:* J VEVERKA  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3627** **CORNELL UNIVERSITY** **6849**  
 SHAPES, SURFACES AND INTERIORS OF SATELLITES  
 02/12/1997 - 09/30/2000 FY00: \$37,050 Total: \$210,850  
*Prin. Invest.:* P C THOMAS  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3639** **CORNELL UNIVERSITY** **6850**  
 STUDY OF THE EFFECTS OF PHOTOMETRIC GEOMETRY ON SP MEASUREMENTS  
 02/12/1997 - 12/31/2000 FY00: \$47,500 Total: \$197,500  
*Prin. Invest.:* P HELFENSTEIN  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3795** **CORNELL UNIVERSITY** **6851**  
 DYNAMICAL STUDIES OF PLANETARY RINGS  
 03/24/1997 - 09/30/2000 FY00: \$57,950 Total: \$236,050  
*Prin. Invest.:* P D NICHOLSON  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3800** **CORNELL UNIVERSITY** **6852**  
 STATISTICS OF GAMMA RAY BURSTS  
 11/27/1996 - 11/30/2000 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* I M WASSERMAN  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3862** **CORNELL UNIVERSITY** **6853**  
 STUDIES OF THERMAL STRUCTURES AND MOTIONS OF PLANE  
 01/24/1997 - 11/30/2000 FY00: \$102,961 Total: \$423,961  
*Prin. Invest.:* D J GIERABCH  
*Tech. Officer:* GSFC/J BERGSTRAHL  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3910 CORNELL UNIVERSITY 6854**  
 PHYSICAL PROCESSES IN PLANETARY RINGS  
 03/07/1997 - 12/31/2000 FY00: \$108,300 Total: \$569,100  
*Prin. Invest.:* D A BURNS  
*Tech. Officer:* GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4464 CORNELL UNIVERSITY 6862**  
 ELECTRON AND ION ACCELERATION BY ALFVEN WAVE BREAK  
 05/21/1997 - 05/14/2000 FY00: \$0 Total: \$225,000  
*Prin. Invest.:* D E SEYLER  
*Tech. Officer:* GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 4205 CORNELL UNIVERSITY 6855**  
 STUDIES IN PLANETARY GEOSCIENCES  
 03/19/1997 - 03/31/2001 FY00: \$147,420 Total: \$459,323  
*Prin. Invest.:* S W SQUIRES  
*Tech. Officer:* GSFC/J G GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4502 CORNELL UNIVERSITY 6863**  
 OPERATE THE SPACECRAFT PLANETARY IMAGING FACILITY  
 05/06/1997 - 12/31/2000 FY00: \$35,150 Total: \$146,150  
*Prin. Invest.:* D VEVERKA  
*Tech. Officer:* GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4220 CORNELL UNIVERSITY 6856**  
 SURFACE PROPERTIES FROM RADAR AND RADIO OBSERVATIO  
 03/15/1997 - 12/31/2000 FY00: \$0 Total: \$161,900  
*Prin. Invest.:* D B CAMPBELL  
*Tech. Officer:* GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 5045 CORNELL UNIVERSITY 6864**  
 ARECIBO SUPPORT FOR STUDIES OF SPORADIC METALLIC LAYERS IN THE  
 EARTH'S MESOSPHERE & LOWER THERMOSP  
 07/28/1995 - 08/31/1999 FY00: \$0 Total: \$111,249  
*Prin. Invest.:* C A TEPLY  
*Tech. Officer:* GSFC/R H PLESS  
 CASE Category: 13 - PHYSICS

**NAG 5 4222 CORNELL UNIVERSITY 6857**  
 COST OPTIMIZATION OF MENUS AND FOOD PREPARATION FO CELSS  
 STATIONS  
 03/15/1997 - 03/14/2001 FY00: \$0 Total: \$507,465  
*Prin. Invest.:* J B HUNTER  
*Tech. Officer:* GSFC/M AVERNER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 5079 CORNELL UNIVERSITY 6865**  
 CLEFT ACCELERATED PLASMAS EXPERIMENT ROCKET (CAPER FUNDING  
 FOR THE FIRST YEAR OF THE GRANT  
 05/15/1996 - 05/31/2000 FY00: \$0 Total: \$463,581  
*Prin. Invest.:* P KINTNER  
*Tech. Officer:* GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 4229 CORNELL UNIVERSITY 6858**  
 INVESTIGATION OF ANCIENT HIGHLAND/LACUSTRINE SITES ON MARS  
 03/21/1997 - 09/30/1999 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* D W SQUIRES  
*Tech. Officer:* GSFC/M BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5080 CORNELL UNIVERSITY 6866**  
 LANGMUIR TURBULENCE ROCKET  
 06/12/1996 - 04/30/2000 FY00: \$0 Total: \$315,138  
*Prin. Invest.:* M C KELLEY  
*Tech. Officer:* GSFC/L W GURKIN  
 CASE Category: 13 - PHYSICS

**NAG 5 4333 CORNELL UNIVERSITY 6859**  
 MARS SURFACE MINERALOGY FROM HST AND MARINER 6.7 I  
 04/25/1997 - 04/30/2001 FY00: \$34,200 Total: \$133,200  
*Prin. Invest.:* D F BELL  
*Tech. Officer:* GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 5134 CORNELL UNIVERSITY 6867**  
 CO-INVESTIGATOR PROPOSAL FOR ENSTROPY- FILAMENTATION OF  
 AWARD CURRENTS  
 04/14/1997 - 03/31/2000 FY00: \$0 Total: \$201,591  
*Prin. Invest.:* P KINTNER  
*Tech. Officer:* GSFC/W JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 4361 CORNELL UNIVERSITY 6860**  
 IMPLICATIONS OF EPISODIC SUBDUCTION  
 04/08/1997 - 03/31/2000 FY00: \$0 Total: \$105,000  
*Prin. Invest.:* D L TURCOTTE  
*Tech. Officer:* GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 5233 CORNELL UNIVERSITY 6868**  
 SIERRA PI DR. PAUL KINTNER  
 02/10/1999 - 02/09/2002 FY00: \$175,100 Total: \$366,248  
*Prin. Invest.:* P M KINTNER  
*Tech. Officer:* MSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 4376 CORNELL UNIVERSITY 6861**  
 DEVELOPMENT OF AN EFFICIENT MID-INFRARED CROSS-DIS GRAPH  
 05/08/1997 - 04/30/2000 FY00: \$0 Total: \$250,000  
*Prin. Invest.:* D R HOUCK  
*Tech. Officer:* GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5244 CORNELL UNIVERSITY 6869**  
 FIRST YEAR OF A THREE GRANT NAG5-5244 PI DR. MICHAEL C. KELLEY  
 03/29/1999 - 03/28/2002 FY00: \$47,500 Total: \$91,938  
*Prin. Invest.:* M C KELLEY  
*Tech. Officer:* GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

<b>NAG 5 6111</b>	<b>CORNELL UNIVERSITY</b>	<b>6870</b>	
CLIMATE, EROSION, AND TECTONICS IN THE ANDES AND O			
07/28/1997 - 03/31/1999	FY00: \$0	Total: \$112,500	
Prin. Invest.: B ISACKS			
Tech. Officer: GSFC/M BATLUCK			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 5 6273</b>	<b>CORNELL UNIVERSITY</b>	<b>6871</b>	
BIOLOGICAL AND PHYSICAL CONTROLS OF PRIMARY PRODUC SUBSE-			
QUENT FATE IN THE GEORGES BANK REGION: AN IN			
08/29/1997 - 10/31/2000	FY00: \$64,955	Total: \$218,223	
Prin. Invest.: G CHARLES			
Tech. Officer: GSFC/J JODER			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 5 6311</b>	<b>CORNELL UNIVERSITY</b>	<b>6872</b>	
MAGNETOHYDRODYNAMICS AND PLASMA PHENOMENA IN PROTO			
STELLAR SYSTEMS			
10/06/1997 - 04/30/2000	FY00: \$0	Total: \$75,000	
Prin. Invest.: P V LOVEFACE			
Tech. Officer: HQ/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 6437</b>	<b>CORNELL UNIVERSITY</b>	<b>6873</b>	
PERCEPTION AND TRANSDUCTION OF THE GRAVITATIONAL STIMULUS			
10/28/1997 - 05/31/2000	FY00: \$0	Total: \$220,007	
Prin. Invest.: R WAYNE			
Tech. Officer: GSFC/M P AVERNER			
CASE Category: 59 - LIFE SCIENCE, OTHER			
<b>NAG 5 6495</b>	<b>CORNELL UNIVERSITY</b>	<b>6874</b>	
DEVELOPMENT OF 256X256 Si:SB AND Si:AS BIBIB DETECTORS FOR			
SOFIA			
10/31/1997 - 12/31/2000	FY00: \$250,000	Total: \$810,000	
Prin. Invest.: D L HERTER			
Tech. Officer: GSFC/H THRONSON			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 6783</b>	<b>CORNELL UNIVERSITY</b>	<b>6875</b>	
RADAR SYNTHESIS IMAGING OF SMALL BODIES			
01/20/1998 - 09/30/2000	FY00: \$0	Total: \$102,000	
Prin. Invest.: D B CAMPBELL			
Tech. Officer: GSFC/P ROGERS			
CASE Category: 32 - GEOLOGICAL SCIENCE			
<b>NAG 5 6893</b>	<b>CORNELL UNIVERSITY</b>	<b>6876</b>	
A HIGH-ENERGY PULSAR SURVEY			
01/30/1998 - 01/31/2000	FY00: \$0	Total: \$43,600	
Prin. Invest.: Z ARZOUUMANIAN			
Tech. Officer: GSFC/D K WEST			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 6987</b>	<b>CORNELL UNIVERSITY</b>	<b>6877</b>	
NANO-ELECTRIC FIELD TECHNOLOGY (NEFTY)			
02/24/1998 - 03/31/2000	FY00: \$0	Total: \$88,324	
Prin. Invest.: P M KINTNER			
Tech. Officer: GSFC/M MELLOTT			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7264</b>	<b>CORNELL UNIVERSITY</b>	<b>6878</b>	
ROTATING AND BINARY NEUTRON STARS IN GENERAL RELATIVITY - ATP			
04/29/1998 - 04/30/2001	FY00: \$54,636	Total: \$166,136	
Prin. Invest.: S TUEKOLSKY			
Tech. Officer: GSFC/D K WEST			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7373</b>	<b>CORNELL UNIVERSITY</b>	<b>6879</b>	
OBSERVATIONS OF LARGE-SCALE JOVIAN THERMAL WAVES			
05/12/1998 - 05/14/2000	FY00: \$47,810	Total: \$158,910	
Prin. Invest.: J HARRINGTON			
Tech. Officer: GSFC/L D DEMING			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7497</b>	<b>CORNELL UNIVERSITY</b>	<b>6880</b>	
UNDERSTANDING METEOROLOGICAL CONTROLS OF GLACIER MASS			
BALANCE			
06/29/1998 - 06/30/2001	FY00: \$0	Total: \$270,000	
Prin. Invest.: K H COOK			
Tech. Officer: GSFC/E T ENGMAN			
CASE Category: 32 - GEOLOGICAL SCIENCE			
<b>NAG 5 7508</b>	<b>CORNELL UNIVERSITY</b>	<b>6881</b>	
ELASTIC PROPERTIES OF FILMS OF WATER AND NOBLE GASES			
CONDENSED AT LOW TEMPERATURES			
06/29/1998 - 05/31/2001	FY00: \$40,000	Total: \$130,000	
Prin. Invest.: R O POHL			
Tech. Officer: HQ/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7864</b>	<b>CORNELL UNIVERSITY</b>	<b>6882</b>	
JUPITER CLOUD STRUCTURE AND DYNAMICS STUDIES			
01/12/1999 - 12/31/2000	FY00: \$92,000	Total: \$182,000	
Prin. Invest.: D J GIERASCH			
Tech. Officer: GSFC/R BEEBE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7892</b>	<b>CORNELL UNIVERSITY</b>	<b>6883</b>	
SPECTROSCOPY AND METEORITE LINKAGE OF THE K-TYPE ASTEROIDS			
12/04/1998 - 12/31/2000	FY00: \$20,000	Total: \$41,000	
Prin. Invest.: D E CLARK			
Tech. Officer: GSFC/J GRANT			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7919</b>	<b>CORNELL UNIVERSITY</b>	<b>6884</b>	
SPATIALLY RESOLVED K-BAND GRISM SPECTRA OF URANUS AND			
NEPTUNE: AEROSOL AND METHANE VERTICAL DISTRIBUTION			
12/10/1998 - 12/31/2000	FY00: \$26,195	Total: \$58,795	
Prin. Invest.: D BANFIELD			
Tech. Officer: GSFC/T MORGAN			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 7941</b>	<b>CORNELL UNIVERSITY</b>	<b>6885</b>	
XTE PROPOSAL (30182) SIMULTANEOUS X-RAY/INFRARED/RADIO			
OBSERVATIONS OF GRS1915+105			
02/05/1999 - 12/14/1999	FY00: \$0	Total: \$6,862	
Prin. Invest.: S S EIKENBERRY			
Tech. Officer: GSFC/J SWANK			
CASE Category: 11 - ASTRONOMY			

**NAG 5 7965 CORNELL UNIVERSITY 6886**  
 JOVIAN PLANETARY WAVES: BASIC ATMOSPHERIC PROPERTIES FROM  
 MULTIPLE PRE-GALILEO DATASETS  
 12/15/1998 - 12/31/2000 FY00: \$0 Total: \$73,978  
 Prin. Invest.: D HARRINGTON  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7962 CORNELL UNIVERSITY 6887**  
 THE HIGH ENERGY EMISSION MECHANISM IN ROTATION-POWERED  
 PULSARS ADP98  
 01/19/1999 - 07/14/2000 FY00: \$0 Total: \$23,000  
 Prin. Invest.: S S EIKENBERRY  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 21 - MATHEMATICS

**NAG 5 8010 CORNELL UNIVERSITY 6888**  
 DIGITAL MAPPING OF JOVIAN CLOUD MOTIONS  
 01/13/1999 - 01/14/2001 FY00: \$25,000 Total: \$50,000  
 Prin. Invest.: P HELFENSTEIN  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8067 CORNELL UNIVERSITY 6889**  
 COMET NUCLEUS TOUR - CONTOUR  
 01/21/1999 - 09/30/2000 FY00: \$0 Total: \$574,000  
 Prin. Invest.: D VEVERKA  
 Tech. Officer: GSFC/A CARRO  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8070 CORNELL UNIVERSITY 6890**  
 WATER DETECTION ON ASTEROIDS: ARE THE VISIBLE REBANDS REALLY A  
 GOOD PROXY?  
 01/29/1999 - 02/28/2001 FY00: \$43,332 Total: \$89,364  
 Prin. Invest.: D S HOWELL  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8076 CORNELL UNIVERSITY 6891**  
 MAGNETOMETER-BASED ORBIT AND ATTITUDE DETERMINATION WITH  
 SIMULTANEOUS CORRECTION OF THE EARTH'S M  
 01/22/1999 - 12/31/1999 FY00: \$0 Total: \$49,620  
 Prin. Invest.: M PSIAKI  
 Tech. Officer: GSFC/R R HARMAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8188 CORNELL UNIVERSITY 6892**  
 UNDERGRADUATE COURSE ON SATELLITE REMOTE SENSING IN BIOLOG-  
 ICA/OCEANOGRAPHY  
 03/04/1999 - 03/31/2001 FY00: \$82,519 Total: \$151,501  
 Prin. Invest.: B MONGER  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8282 CORNELL UNIVERSITY 6893**  
 SEPARATION & ANALYSIS OF TES ATMOSPHERIC TEMPERATURES AS  
 COMPONENT FIELDS: ZONAL MEANS, THERMAL  
 02/19/1999 - 02/28/2001 FY00: \$66,000 Total: \$134,800  
 Prin. Invest.: D J BANDFIELD  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8356 CORNELL UNIVERSITY 6894**  
 ASTROPHYSICS OF FAST MOVING NEUTRON STARS (ATP98)  
 03/11/1999 - 03/14/2001 FY00: \$105,504 Total: \$214,504  
 Prin. Invest.: D F CHERNOFF  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8484 CORNELL UNIVERSITY 6895**  
 MATTER IN STRONG MAGNETIC FIELDS AND THERMAL RADIATION FROM  
 ISOLATED NEUTRON STARS (ATP - 98)  
 05/11/1999 - 05/14/2001 FY00: \$63,114 Total: \$128,114  
 Prin. Invest.: D LAI  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8673 CORNELL UNIVERSITY 6896**  
 A SCANNING DOUBLE HALF-WAVE INTERFEROMETER FOR SOFIA  
 07/09/1999 - 07/14/2001 FY00: \$161,770 Total: \$315,665  
 Prin. Invest.: G J STACEY  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8775 CORNELL UNIVERSITY 6897**  
 ENGINEERING CONTROL OF BIOMOLECULAR MOTOR-POWERED  
 NANO-CHEMICAL DEVICE  
 09/01/1999 - 08/31/2001 FY00: \$147,373 Total: \$183,141  
 Prin. Invest.: C MONTEEMAGNO  
 Tech. Officer: GSFC/R CROUCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8788 CORNELL UNIVERSITY 6898**  
 GPS-BASED APPROACHES TO ORBIT DETERMINATION AND DIFFERENTIAL  
 POSITIONING OF THE SPACE SOLAR POWER  
 08/31/1999 - 05/31/2000 FY00: \$0 Total: \$22,986  
 Prin. Invest.: M PSIAKI  
 Tech. Officer: GSFC/S KANT  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 8950 CORNELL UNIVERSITY 6899**  
 DELIVERY OF ASTEROIDS AND METEORIDS TO EARTH VIA YARKOVSKY  
 THERMAL FORCES  
 01/24/2000 - 01/31/2001 FY00: \$24,700 Total: \$24,700  
 Prin. Invest.: W BOTTKE  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9034 CORNELL UNIVERSITY 6900**  
 RADAR SYNTHESIS IMAGING OF SMALL BODIES  
 02/07/2000 - 02/14/2003 FY00: \$59,850 Total: \$59,850  
 Prin. Invest.: B CAMPBELL  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9047 CORNELL UNIVERSITY 6901**  
 ACCRETION TO MAGNETIZED ROTATING NEUTRON STARS (ATP 99)  
 03/09/2000 - 03/14/2001 FY00: \$57,109 Total: \$57,109  
 Prin. Invest.: R LOVELACE  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY



**NAG 5 9067** **CORNELL UNIVERSITY** **6902**  
 SCALING & CROSS CORRELATION STUDIES OF LAND SLIDES  
 02/17/2000 - 02/28/2001 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: D L TURCOTTE  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9082** **CORNELL UNIVERSITY** **6903**  
 UNDERSTANDING THE DISTRIBUTION OF NEAR-EARTH OBJECTS TO THE  
 NASA NEAR EARTH OBJECTS OBSERVATIONS  
 02/17/2000 - 02/14/2001 FY00: \$46,000 Total: \$46,000  
 Prin. Invest.: W BOTTKE  
 Tech. Officer: GSFC/T H MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9140** **CORNELL UNIVERSITY** **6904**  
 INVESTIGATION OF CELESTIAL SOLID ANALOGS  
 02/29/2000 - 02/28/2002 FY00: \$56,520 Total: \$56,520  
 Prin. Invest.: A SIEVERS  
 Tech. Officer: GSFC/P CRANE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9178** **CORNELL UNIVERSITY** **6905**  
 MULTIWAVELENGTH OBSERVATIONS OF THE MICROQUASAR GRS  
 1915+105--ADP99  
 03/06/2000 - 03/14/2001 FY00: \$20,482 Total: \$20,482  
 Prin. Invest.: S S EIKENBERRY  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 21 - MATHEMATICS

**NAG 5 9199** **CORNELL UNIVERSITY** **6906**  
 ELECTRON AND ION ACCELERATION ASSOCIATED WITH ALFVENIC STRUCTURES  
 03/09/2000 - 03/14/2003 FY00: \$73,500 Total: \$73,500  
 Prin. Invest.: C E SEYLER  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9492** **CORNELL UNIVERSITY** **6907**  
 STUDIES OF VOLCANISM AND TECTONISM ON MARS AND THE MOON  
 04/17/2000 - 04/14/2001 FY00: \$33,250 Total: \$33,250  
 Prin. Invest.: D L TURCOTTE  
 Tech. Officer: GSFC/J A GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9594** **CORNELL UNIVERSITY** **6908**  
 PARTICIPATION IN SHOEMAKER-LEVY 9 IMPACT MODELING INVESTIGATION  
 06/08/2000 - 06/14/2001 FY00: \$60,324 Total: \$60,324  
 Prin. Invest.: J HARRINGTON  
 Tech. Officer: GSFC/L D DEMING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9612** **CORNELL UNIVERSITY** **6909**  
 NEW ALGORITHMS FOR MAGNETOMETER ORBIT AND ATTITUDE ESTIMATION  
 05/28/2000 - 05/31/2001 FY00: \$80,008 Total: \$80,008  
 Prin. Invest.: D PSIANKI  
 Tech. Officer: GSFC/R HARMAN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9735** **CORNELL UNIVERSITY** **6910**  
 MAGNETOHYDRODYNAMICS AND PLASMA PHENOMENA IN PROTE  
 STELLAR SYSTEMS  
 06/21/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R LOVELACE  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9774** **CORNELL UNIVERSITY** **6911**  
 SUB-PIXEL DETECTABILITY OF MATERIALS AT THE PATH FINDER LANDING  
 SITE: IMPLICATIONS FOR MARTIAN SURF  
 06/30/2000 - 06/30/2001 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: J F BELL  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9794** **CORNELL UNIVERSITY** **6912**  
 DETERMINATION OF AERODYNAMIC ROUGHNESS FROM SURFACE-  
 BASES STEREO IMAGING  
 07/11/2000 - 07/14/2001 FY00: \$42,100 Total: \$42,100  
 Prin. Invest.: R J SULLIVAN  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1357** **CORNELL UNIVERSITY** **6913**  
 R/S "DEFECTS, GROWTH, & ELASTIC PROPERTIES OF PROTEIN CRYSTALS"  
 05/15/1997 - 11/29/2000 FY00: \$57,000 Total: \$369,000  
 Prin. Invest.: R THORNE  
 Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1372** **CORNELL UNIVERSITY** **6914**  
 R/S ENHANCEMENT OF CELL FUNCTION IN CULTURE BY CONTROLLED  
 AGGREGATION UNDER MICROGRAVITY CONDITIO  
 06/18/1997 - 11/30/2000 FY00: \$151,000 Total: \$511,000  
 Prin. Invest.: W M SALTZMAN  
 Tech. Officer: JSC/W M SATTMAN  
 CASE Category: 13 - PHYSICS

**NAG 8 1438** **CORNELL UNIVERSITY** **6915**  
 STUDIES OF FREE RADICALS  
 02/17/1998 - 01/31/2001 FY00: \$74,000 Total: \$235,000  
 Prin. Invest.: J M PARPIA  
 Tech. Officer: MSFC/J W POE  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1445** **CORNELL UNIVERSITY** **6916**  
 STUDIES OF FREE RADICALS  
 02/18/1998 - 01/31/2003 FY00: \$125,000 Total: \$441,000  
 Prin. Invest.: D M LEE  
 Tech. Officer: MSFC/J W POE  
 CASE Category: 13 - PHYSICS

**NAG 8 1518** **CORNELL UNIVERSITY** **6917**  
 MESOSCALE LANDSURFACE HEAT FLUX VARIABILITY OVER THE  
 SOUTHERN GCIP AREA FROM ATMOSPHERIC SOUNDINGS  
 06/01/1998 - 05/31/2001 FY00: \$113,000 Total: \$343,000  
 Prin. Invest.: W BRUTSAERT  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1574 CORNELL UNIVERSITY 6918**  
 IMPURITY EFFECTS IN MACROMOLECULAR CRYSTAL GROWTH  
 01/05/1999 - 11/30/2002 FY00: \$81,000 Total: \$163,000  
 Prin. Invest.: R THORNE  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1666 CORNELL UNIVERSITY 6919**  
 INFLUENCE OF HOMOGENEITY AND FRAGILITY ON THE DYNAMICAL PROPERTIES OF GLASSY NETWORKS.  
 05/12/2000 - 09/30/2003 FY00: \$55,000 Total: \$55,000  
 Prin. Invest.: A J SIEVERS  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 8 1671 CORNELL UNIVERSITY 6920**  
 ON THE CONTROL OF THE EFFECTS OF GRAVITY ON THE SOLIDIFICATION MICROSTRUCTURES USING OPTIMALLY DESIG  
 06/16/2000 - 12/31/2003 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: N ZABARAS  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 8 1716 CORNELL UNIVERSITY 6921**  
 SIMULATION FOR OPERATIONAL AND SPARE PARTS STOCKING FOR SPACE TRANSPORTATION SYSTEMS.  
 03/22/2000 - 11/14/2000 FY00: \$74,999 Total: \$74,999  
 Prin. Invest.: P JACKSON  
 Tech. Officer: MSFC/M NIX  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 1118 CORNELL UNIVERSITY 6922**  
 DEVELOP AND EVALU OF SINGLECELL OIL FOR BIO LIFE SUPPORT SYS  
 06/03/1999 - 07/31/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: C J GREENWALT  
 Tech. Officer: JSC/C T BOURLAND  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NASW 00005 CORNELL UNIVERSITY 6923**  
 PRINCIPAL INVESTIGATOR & CO'S NASA'S CONTOUR DISCOVERY MISSION  
 07/03/2000 - 09/30/2002 FY00: \$342,000 Total: \$342,000  
 Prin. Invest.: J F VEVERKA  
 Tech. Officer: HQ/D B JARRETT  
 CASE Category: 11 - ASTRONOMY

**NASW 99006 CORNELL UNIVERSITY 6924**  
 DEVELOPMENT MID-INFARED CROSS DISPERSED ECHELLE SPECTROGRAPH W/NO MOVING PARTS KECK OBS  
 05/24/1999 - 05/23/2000 FY00: \$0 Total: \$78,812  
 Prin. Invest.: J R HOUCK  
 Tech. Officer: HQ/J T BERGSTRAHL  
 CASE Category: 11 - ASTRONOMY

**NCC 2 1201 CORNELL UNIVERSITY 6925**  
 DO INTEGRINS MEDIATE THE SKELETAL RESPONSES TO ALTERED LOADING IN VIVO (SUB-PROJECT B)  
 09/12/2000 - 09/30/2001 FY00: \$33,888 Total: \$33,888  
 Prin. Invest.: M C VAN DER MEULEN  
 Tech. Officer: ARC/R K GLOBUS, ARC/E M HOLTON  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 3 468 CORNELL UNIVERSITY 6926**  
 MICROGRAVITY SEGREGATION IN BINARY MIXTURES OF INELASTIC SPHERES DRIVEN BY VELOCITY FLUCTUATION GRA  
 04/22/1996 - 04/15/2001 FY00: \$83,999 Total: \$787,098  
 Prin. Invest.: J T JENKINS, M LOUGE  
 Tech. Officer: GRC/R HAKIMZADEH, GRC/E NELSON  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 797 CORNELL UNIVERSITY 6927**  
 PARTICLE SEGREGATION IN COLLISIONAL SHEARING FLOWS PARTICLE SEGREGATION IN COLLISIONAL SHEARING FLOW  
 05/18/2000 - 04/30/2005 FY00: \$126,000 Total: \$126,000  
 Prin. Invest.: J JENKINS  
 Tech. Officer: GRC/F P CHARIAMONTE  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 5 132 CORNELL UNIVERSITY 6928**  
 RADIATIVE STUDIES OF PLANETARY ATMOSPHERES  
 02/14/1996 - 02/14/1999 FY00: \$0 Total: \$105,000  
 Prin. Invest.: P J GIERASCH  
 Tech. Officer: GSFC/M FLASAR  
 CASE Category: 11 - ASTRONOMY

**NCC 5 296 CORNELL UNIVERSITY 6929**  
 CARBON AND NUTRIENT STOCKS, SOIL WATER DYNAMICS, AND NO TRACE GAS FLUXES IN ABANDONED PASTURES AND AGR  
 06/16/1998 - 12/31/2000 FY00: \$245,232 Total: \$649,175  
 Prin. Invest.: E FERNANDES  
 Tech. Officer: GSFC/D DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 322 CORNELL UNIVERSITY 6930**  
 OUTER PLANETS ATMOSPHERIC STRUCTURE  
 03/10/1996 - 02/28/2001 FY00: \$122,587 Total: \$330,139  
 Prin. Invest.: P J GIERASCH  
 Tech. Officer: GSFC/F M FLASAR  
 CASE Category: 11 - ASTRONOMY

**NCC 5 375 CORNELL UNIVERSITY 6931**  
 RADIATIVE STUDIES OF PLANETARY ATMOSPHERES  
 01/19/1999 - 02/14/2001 FY00: \$109,625 Total: \$159,625  
 Prin. Invest.: B J CONRATH  
 Tech. Officer: GSFC/F M FLASAR  
 CASE Category: 11 - ASTRONOMY

**NCC 9 86 CORNELL UNIVERSITY 6932**  
 EVALUATION OF WATER-JACKETED LAMPS FOR USE IN JSC BIO-PLEX  
 06/01/1999 - 12/31/2000 FY00: \$11,114 Total: \$26,089  
 Prin. Invest.: L D ALBRIGHT  
 Tech. Officer: JSC/D J BARTA  
 CASE Category: 55 - AGRICULTURE

**NCC 9 89 CORNELL UNIVERSITY 6933**  
 COORDINATE ANALYSIS AND CALIBRATION STUDIES  
 07/20/1999 - 07/19/2002 FY00: \$10,000 Total: \$20,000  
 Prin. Invest.: R V MORRIS, J F BELL  
 Tech. Officer: JSC/R V MORRIS  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

## NASA'S UNIVERSITY PROGRAM

NEW YORK

<b>NGT 3 52362</b>	<b>CORNELL UNIVERSITY</b>	<b>6934</b>	
NASA GRADUATE STUDENT RESEARCHERS PROGRAM	NASA GRADUATE STUDENT RESEARCHERS PROGRAM		
06/07/2000 - 06/30/2001	FY00: \$22,000	Total: \$22,000	
Prin. Invest.: D KOCH			
Tech. Officer: GRC/H K NAHRA			
CASE Category: 43 - CHEMICAL ENGR			
<b>NGT 5 51</b>	<b>CORNELL UNIVERSITY</b>	<b>6935</b>	
SYNOPTIC-TO SEASONAL-SCALE INFLUENCES ON MID-LATIT RY ABOUT THE WEATHER			
06/23/1997 - 06/30/2000	FY00: \$0	Total: \$86,000	
Prin. Invest.: B L ISACKS			
Tech. Officer: GSFC/M S BURRELL			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
<b>NGT 5 30038</b>	<b>CORNELL UNIVERSITY</b>	<b>6936</b>	
THE INTERNAL NITROGEN CYCLE OF TEMPERATURE FORESTS MECHANISMS IN THE ABSENCE OF HUMAN DISTURBANCE			
10/17/1996 - 08/31/2000	FY00: \$0	Total: \$66,000	
Prin. Invest.: L O HEDIN			
Tech. Officer: GSFC/G ASRAR			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
<b>NGT 5 30126</b>	<b>CORNELL UNIVERSITY</b>	<b>6937</b>	
INTERFEROMETRIC SAR MEASUREMENTS OF SEISMIC & INTER-SEISMIC STRAIN NEAR A MAJOR SEISMIC GAP IN PERU			
10/10/1997 - 08/31/2001	FY00: \$0	Total: \$66,000	
Prin. Invest.: B ISACKS			
Tech. Officer: GSFC/G ASRAR			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NGT 5 30210</b>	<b>CORNELL UNIVERSITY</b>	<b>6938</b>	
HAVE WE GROSSLY UNDERESTIMATED METHANE PRODUCTION & CONSUMPTION? APPLICATION OF A NEW STABLE ISOTOPE			
08/20/1999 - 08/31/2001	FY00: \$22,000	Total: \$44,000	
Prin. Invest.: L O HEDIN			
Tech. Officer: GSFC/M WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 40019</b>	<b>CORNELL UNIVERSITY</b>	<b>6939</b>	
TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.			
01/06/1997 - 01/31/2001	FY00: \$475,000	Total: \$1,805,000	
Prin. Invest.: Y TERZIAN			
Tech. Officer: GSFC/L KEFFER			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NGT 5 50218</b>	<b>CORNELL UNIVERSITY</b>	<b>6940</b>	
VOLUMETRIC ASSESSMENT OF FACTORS GOVERNING SEASONAL AND INTERANNUAL FLUXES OF PHYTOPLANKTON FROM			
09/17/1998 - 08/31/2001	FY00: \$22,000	Total: \$66,000	
Prin. Invest.: C H GREENE, FISHER			
Tech. Officer: GSFC/M Y WEI			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NGT 5 50270</b>	<b>CORNELL UNIVERSITY</b>	<b>6941</b>	
PRE-AGGREGATION OF CELLS UNDER MICROGRAVITY CONDITIONS FOLLOWED BY TRANSPLANTATION INTO THE BRAIN			
07/23/1999 - 08/31/2000	FY00: \$0	Total: \$22,000	
Prin. Invest.: M SALTZMAN			
Tech. Officer: GSFC/L SMITH			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NGT 9 16</b>	<b>CORNELL UNIVERSITY</b>	<b>6942</b>	
SELECTION & CHARAC OF VEG CROP CULTIVARS ...			
05/16/1997 - 09/30/2000	FY00: \$20,000	Total: \$69,000	
Prin. Invest.: R W LANGHANS			
Tech. Officer: JSC/D G SICKOREZ			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NGT 9 17</b>	<b>CORNELL UNIVERSITY</b>	<b>6943</b>	
DEV & EVAL SINGLE CELL OIL PRODUCT ...			
05/16/1997 - 07/31/2000	FY00: \$22,000	Total: \$65,306	
Prin. Invest.: J B HUNTER			
Tech. Officer: JSC/D G SICKOREZ			
CASE Category: 55 - AGRICULTURE			
<b>NGT10 52607</b>	<b>CORNELL UNIVERSITY</b>	<b>6944</b>	
GRADUATE STUDENT RESEARCHERS PROGRAM			
04/18/1996 - 06/30/2000	FY00: \$0	Total: \$84,330	
Prin. Invest.: C F JOHNSON			
Tech. Officer: KSC/J SAGER			
CASE Category: 55 - AGRICULTURE			
<b>NGT10 52623</b>	<b>CORNELL UNIVERSITY</b>	<b>6945</b>	
GRADUATE STUDENT RESEARCHER'S PROGRAM			
08/23/1999 - 08/30/2001	FY00: \$22,000	Total: \$44,000	
Prin. Invest.: L ALBRIGHT			
Tech. Officer: KSC/R WHEELER			
CASE Category: 55 - AGRICULTURE			
<b>NAG13 00007</b>	<b>FULTON-MONTGOMERY COMMUNITY COLLEGE</b>	<b>6946</b>	
SPATIAL INFORMATION TECHNOLOGY CENTER AT FULTON-MONTGOMERY COMMUNITY COLLEGE			
03/23/2000 - 03/26/2001	FY00: \$375,000	Total: \$375,000	
Prin. Invest.: M PRESTOPNIK			
Tech. Officer: SSC/D L POWE			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NAG 5 7503</b>	<b>HOFSTRA UNIVERSITY</b>	<b>6947</b>	
OCEAN SURFACE STRESS MEASUREMENTS USING SATELLITE SCATTEROMETERS			
06/09/1998 - 12/31/2000	FY00: \$0	Total: \$256,223	
Prin. Invest.: D E WEISSMAN			
Tech. Officer: GSFC/E J LINDSTROM			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 8 1259</b>	<b>HUNTER COLL OF THE CITY UNIV OF NEW YORK</b>	<b>6948</b>	
JOVE RESEARCH			
01/17/1997 - 08/31/2000	FY00: \$0	Total: \$208,000	
Prin. Invest.: L COHEN, S GREENBAUM, P COMBS			
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NAG 5 9311</b>	<b>INTER AMERICAN UNIV OF PR AGUADILLA CAMP</b>	<b>6949</b>	
PRECOLLEGE AWARENESS IN MATHY AND SCIENCE PROGRAM			
03/22/2000 - 02/28/2001	FY00: \$95,134	Total: \$95,134	
Prin. Invest.: R GONZALEZ			
Tech. Officer: HQ/M STOUTSENBERGER			
CASE Category: 99 - MULTI INTERDISCIPL, OTHER			
<b>NAG 8 1273</b>	<b>IONA COLLEGE</b>	<b>6950</b>	
RESEARCH FOR JOVE			
01/21/1997 - 08/31/1999	FY00: -\$25,981	Total: \$27,019	
Prin. Invest.: R NOVAK			
Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT			
CASE Category: 11 - ASTRONOMY			

**NGT 5 98079 LA GUARDIA COMMUNITY COLLEGE 6951**  
 USAR (B) BERRY-\$6600 (PLUS \$5400 IN CARRYOVER); FO RTUNE, MATOS,  
 MERCER, ORMAZA, PROUT AND SAVERINO  
 10/17/1997 - 08/31/1999 FY00: \$0 Total: \$74,850  
 Prin. Invest.: R MCLEOD  
 Tech. Officer: GSFC/R LAWRENCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9889 MARIST COLLEGE 6952**  
 PERSISTENCE & INFECTIVITY OF CYANOPHAGE FROM POLAR ENVIRON-  
 MENTS: IMPLICATIONS FOR PLANETARY PROTECTI  
 08/30/2000 - 06/30/2001 FY00: \$70,650 Total: \$70,650  
 Prin. Invest.: R KEPNER  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9256 MEDGAR EVERS COLLEGE 6953**  
 MEDGAR EVERS COLLEGE AERONAUTICS AND EARTH SCIENCE ACADEMY  
 03/15/2000 - 02/28/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: L JOHNSON  
 Tech. Officer: HQ/M STOUTSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 205 MEDGAR EVERS COLLEGE 6954**  
 MEDGAR EVERS COLLEGE OCEAN AND ENVIRONMENTAL SCIEN  
 06/11/1997 - 05/31/1999 FY00: \$0 Total: \$399,986  
 Prin. Invest.: L P JOHNSON  
 Tech. Officer: GSFC/A A LACIS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 2 946 MT SINAI SCH OF MED OF THE CUNY 6955**  
 ANATOMICAL STUDIES OF CENTRAL VESTIBULAR ADAPTATIO N  
 01/10/1995 - 10/31/2000 FY00: \$117,753 Total: \$694,832  
 Prin. Invest.: G R HOLSTEIN, G R HOLSTEIN  
 Tech. Officer: ARC/W E HINDS, ARC/C M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1191 MT SINAI SCH OF MED OF THE CUNY 6956**  
 NITRIC OXIDE SIGNALING IN HYPERGRAVITY IN DUCED NE URONAL PLAS-  
 TICITY  
 03/23/1998 - 08/31/2001 FY00: \$406,245 Total: \$636,166  
 Prin. Invest.: G R HOLSTEIN, G P MARTINELLI  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 6276 MT SINAI SCH OF MED OF THE CUNY 6957**  
 VESTIBULAR INFLUENCES ON AUTONOMIC CARDIOVASCULAR  
 09/08/1997 - 12/31/2000 FY00: \$203,806 Total: \$848,810  
 Prin. Invest.: H KAUFMANN  
 Tech. Officer: GSFC/V SCHNEIDER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 816 MT SINAI SCH OF MED OF THE CUNY 6958**  
 THYROID FOLLICLE FORMATION IN MICROGRAVITY  
 08/11/1995 - 09/17/1999 FY00: -\$200 Total: \$605,107  
 Prin. Invest.: A MARTIN  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1097 MT SINAI SCH OF MED OF THE CUNY 6959**  
 ARTCT AND MECH FUNDTION W/RECOVERY FR DISUSE OSTEOPOROSIS  
 04/01/1999 - 03/31/2001 FY00: \$0 Total: \$153,098  
 Prin. Invest.: M SCHAFFLER  
 Tech. Officer: JSC/C LLOYD  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAS 9 19441 MT SINAI SCH OF MED OF THE CUNY 6960**  
 SPATIAL ORIENTATION OF VESTIBULO-OCULAR REFLEX AND VELOCITY  
 STORAGE  
 03/01/1996 - 09/30/2000 FY00: \$68,142 Total: \$1,779,665  
 Prin. Invest.: D COHEN, M.D., M DAI, M.D.  
 Tech. Officer: JSC/A M LEE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1173 MT SINAI SCH OF MED OF THE CUNY 6961**  
 NEUROLAB COMPLETION PROPOSAL: ANATOMICAL STUDIES O F CENTRAL  
 VESTIBULAR ADAPTATION  
 04/17/2000 - 03/31/2001 FY00: \$238,548 Total: \$238,548  
 Prin. Invest.: G R HOLSTEIN  
 Tech. Officer: ARC/M F VASQUES, ARC/P D SAVAGE  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 951 NEW YORK UNIVERSITY 6962**  
 EFFECTS OF GRAVITY ON POSTNATL MOTOR DEVELOPMENT  
 12/22/1994 - 07/31/2001 FY00: \$0 Total: \$878,767  
 Prin. Invest.: K D WALTON  
 Tech. Officer: ARC/W E HINDS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1322 NEW YORK UNIVERSITY 6963**  
 SLENDER VORTEX FILAMENT WITH SLOWLY VARYING CORE S TRUCTURE  
 04/29/1999 - 09/30/1999 FY00: \$0 Total: \$21,975  
 Prin. Invest.: L TING  
 Tech. Officer: ARC/C TUNG  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1426 NEW YORK UNIVERSITY 6964**  
 GRAVITATION & DEVELOPMENT MOTRICITY  
 07/26/2000 - 07/31/2001 FY00: \$80,000 Total: \$80,000  
 Prin. Invest.: K D WALTON  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 7583 NEW YORK UNIVERSITY 6965**  
 JOINT CENTER FOR COMPUTATIONAL MODELING (JCCM)  
 08/04/1998 - 12/31/1999 FY00: \$0 Total: \$100,000  
 Prin. Invest.: M BERGER  
 Tech. Officer: GSFC/D S SPICER  
 CASE Category: 21 - MATHEMATICS

**NAG 5 8475 NEW YORK UNIVERSITY 6966**  
 MODELING SOUTH PACIFIC ICE-OCEAN INTERACTIONS IN THE GLOBAL  
 CLIMATE SYSTEM  
 04/28/1999 - 04/30/2001 FY00: \$0 Total: \$45,065  
 Prin. Invest.: D M HOLLAND  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9246** **NEW YORK UNIVERSITY** **6967**  
 SENSITIVITY OF THE ATMOSPHERIC SHOWERS OF EXTREMELY HIGH  
 ENERGY COSMIC RAYS TO UNKNOWN ASPECTS OF  
 03/14/2000 - 03/14/2001 FY00: \$92,318 Total: \$92,318  
 Prin. Invest.: G FARRAR  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9871** **NEW YORK UNIVERSITY** **6968**  
 AN INVESTIGATION OF THE PREDICTABILITY OF THE NSIPP FORECAST  
 SYSTEM  
 08/08/2000 - 08/14/2001 FY00: \$85,000 Total: \$85,000  
 Prin. Invest.: R KLEEMAN  
 Tech. Officer: GSFC/M REINECKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 9 1024** **NEW YORK UNIVERSITY** **6969**  
 CANCER RISK MECHANISM FOLLOWING REPEATED EXPOSURE TO  
 HIGH LET RADIATION  
 06/04/1998 - 06/04/2001 FY00: \$200,000 Total: \$518,000  
 Prin. Invest.: F J BURNS, NONE  
 Tech. Officer: JSC/F A CUCINOTTA  
 CASE Category: 56 - MEDICL

**NCC 5 125** **NEW YORK UNIVERSITY** **6970**  
 EARTH SYSTEMS SCIENCE RESEARCH  
 10/26/1995 - 09/30/1999 FY00: -\$25,963 Total: \$64,036  
 Prin. Invest.: M HOFFERT  
 Tech. Officer: GSFC/C ROSENZWEIG  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 8 52893** **NEW YORK UNIVERSITY** **6971**  
 NANOTOOLS FROM BIOLOGY: ANTIBODY TECHNOLOGY APPLIED TO  
 CARBON NANOTUBE PROCESSING  
 06/28/2000 - 08/31/2003 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: S WILSON  
 Tech. Officer: MSFC/S NASH-STEVEN  
 CASE Category: 12 - CHEMISTRY

**NCC 8 182** **NAGARA UNIVERSITY** **6972**  
 ALGORITHM DEVELOPMENT AND SCIENCES ANALYSIS OF STANDARD  
 DATA PRODUCTS FROM LIGHTNING INSTR. SPACE  
 04/26/1999 - 04/25/2002 FY00: \$12,125 Total: \$45,083  
 Prin. Invest.: W BOECK  
 Tech. Officer: MSFC/R BLAKESLEE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1370** **POLYTECHNIC UNIVERSITY - BROOKLYN, NY** **6973**  
 R/S "DIFFUSION, VISCOSITY AND CRYSTAL GROWTH OF PROTEINS IN  
 MICROGRAVITY"  
 05/28/1997 - 08/31/2001 FY00: \$125,000 Total: \$361,000  
 Prin. Invest.: A MYERSON  
 Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1455** **POLYTECHNIC UNIVERSITY - BROOKLYN, NY** **6974**  
 R/S THERMODYNAMIC & SPECTROSCOPIC STUDIES OF SECONDARY  
 NUCLEATION IN MICROGRAVITY  
 02/01/1998 - 01/31/2002 FY00: \$80,000 Total: \$206,667  
 Prin. Invest.: A S MEYERSON  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 43 - CHEMICAL ENGR

**NGT 8 52879** **POLYTECHNIC UNIVERSITY - BROOKLYN, NY** **6975**  
 GRADUATE STUDENT RESEARCH PROGRAM DEVELOPMENT OF HEALTH  
 MONITORING TECHNIQUES FOR AEROSPACE  
 09/08/1999 - 08/31/2002 FY00: \$0 Total: \$22,000  
 Prin. Invest.: F LIN  
 Tech. Officer: MSFC/J DOWDY  
 CASE Category: 44 - CIVIL ENGR

**NAG 1 2089** **RENSSELAER POLYTECHNIC INSTITUTE** **6976**  
 EVOLUTION IN DECENTRALIZED EMERGENT COMPUTATION MY 1/2  
 07/08/1998 - 05/30/2001 FY00: \$103,109 Total: \$264,638  
 Prin. Invest.: P HAJELA, K E JANSEN  
 Tech. Officer: LARC/J SOBIESKI, LARC/J R ROGERS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 1696** **RENSSELAER POLYTECHNIC INSTITUTE** **6977**  
 MINORITY ENGINEERING PROGRAM  
 01/18/1995 - 02/15/2000 FY00: \$0 Total: \$230,000  
 Prin. Invest.: M D SMITH  
 Tech. Officer: GRC/S MERRITT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 1834** **RENSSELAER POLYTECHNIC INSTITUTE** **6978**  
 A STUDY OF THE CONSTRAINED VAPOR BUBBLE THERMOSYPHON  
 04/22/1996 - 10/21/2000 FY00: \$62,000 Total: \$709,520  
 Prin. Invest.: P C WAYNER  
 Tech. Officer: GRC/J C DUH  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 1856** **RENSSELAER POLYTECHNIC INSTITUTE** **6979**  
 STUDIES OF CYCLIC AND LINEAR CARBOSILANES AS SINGLE-SOURCE SIC  
 PRECURSORS  
 05/03/1996 - 05/31/1999 FY00: -\$70 Total: \$104,930  
 Prin. Invest.: L V INTERRANTE  
 Tech. Officer: GRC/D LARKIN  
 CASE Category: 12 - CHEMISTRY

**NAG 3 2304** **RENSSELAER POLYTECHNIC INSTITUTE** **6980**  
 STUDIES OF CYCLIC AND LINEAR CARBOSILANES AS SINGLE SOURCE SIC  
 PRECURSORS  
 12/13/1999 - 03/09/2000 FY00: \$5,000 Total: \$5,000  
 Prin. Invest.: L V INTERRANTE  
 Tech. Officer: GRC/D LARKIN  
 CASE Category: 12 - CHEMISTRY

**NAG 3 2334** **RENSSELAER POLYTECHNIC INSTITUTE** **6981**  
 MINORITY ENGINEERING PROGRAM MINORITY ENGINEERING PROGRAM  
 02/17/2000 - 08/31/2000 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: M D SMITH  
 Tech. Officer: GRC/S GOTT  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2351 RENSSELAER POLYTECHNIC INSTITUTE 6982**  
 THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE STABILITY OF  
 AN EVAPORATING CONSTRAINED VAPOR BUBB  
 03/24/2000 - 11/30/2003 FY00: \$27,500 Total: \$27,500  
 Prin. Invest.: D C WAYNER  
 Tech. Officer: GRC/R SKARDA  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2383 RENSSELAER POLYTECHNIC INSTITUTE 6983**  
 R & D WORK ON THE CONSTRAINED VAPOR BUBBLE SYSTEM FOR A  
 MICROGRAVITY EXPERIMENT  
 04/18/2000 - 04/21/2005 FY00: \$148,000 Total: \$148,000  
 Prin. Invest.: P C WAGNER  
 Tech. Officer: GRC/J SKARDA  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 5 3376 RENSSELAER POLYTECHNIC INSTITUTE 6984**  
 ULTRAVIOLET INTERSTELLAR POLARIZATION & NEW INSIGHTS INTO  
 INTERSTELLAR DUST GRAINS  
 09/10/1996 - 09/14/2000 FY00: \$0 Total: \$31,642  
 Prin. Invest.: D C WHITTET  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3725 RENSSELAER POLYTECHNIC INSTITUTE 6985**  
 METEORITE SPECTROSCOPY AND CHARACTERIZATION OF AST  
 MATERIALS  
 02/12/1997 - 02/14/2001 FY00: \$33,250 Total: \$164,250  
 Prin. Invest.: M J GAFFEY, NONE  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4557 RENSSELAER POLYTECHNIC INSTITUTE 6986**  
 A LABORATORY INVESTIGATION OF PHOTOCHEMICAL PROCES  
 06/23/1997 - 10/31/2000 FY00: \$0 Total: \$406,120  
 Prin. Invest.: D P FERRIS  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 7598 RENSSELAER POLYTECHNIC INSTITUTE 6987**  
 ORIGIN OF LIFE: INTERSTELLAR MOLECULES TO INTRONS  
 07/15/1998 - 12/31/2000 FY00: \$897,726 Total: \$1,847,218  
 Prin. Invest.: D P FERRIS  
 Tech. Officer: GSFC/M A MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7884 RENSSELAER POLYTECHNIC INSTITUTE 6988**  
 THE NATURE AND EVOLUTION OF INTERSTELLAR & CIRCUMSTELLAR ICES  
 & ORGANIC MATTER  
 12/01/1998 - 12/31/2000 FY00: \$15,903 Total: \$31,344  
 Prin. Invest.: D C WHITTET  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8876 RENSSELAER POLYTECHNIC INSTITUTE 6989**  
 PARTICIPATING SCIENTIST: ANALYSIS OF THE MS/NIS SPECTRA OF EROS  
 01/24/2000 - 09/30/2001 FY00: \$70,887 Total: \$70,887  
 Prin. Invest.: M J GAFFEY  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9148 RENSSELAER POLYTECHNIC INSTITUTE 6990**  
 AN INVENTORY OF CARBONACEOUS MOLECULES IN INTERSTELLAR ICES  
 & THEIR RELATION TO COMETS  
 03/03/2000 - 03/14/2001 FY00: \$52,658 Total: \$52,658  
 Prin. Invest.: D WHITTET  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 9607 RENSSELAER POLYTECHNIC INSTITUTE 6991**  
 A LABORATORY INVESTIGATION OF PHOTOCHEMICAL PROCESSES ON  
 TITAN  
 05/12/2000 - 05/14/2001 FY00: \$133,000 Total: \$133,000  
 Prin. Invest.: J P FERRIS  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1290 RENSSELAER POLYTECHNIC INSTITUTE 6992**  
 "INVESTIGATIONS OF FREE STREAM FLOW TECHNOLOGIES"  
 12/18/1996 - 09/30/2000 FY00: \$179,950 Total: \$525,669  
 Prin. Invest.: L N MYRABO  
 Tech. Officer: MSFC/G A ROBERTSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1488 RENSSELAER POLYTECHNIC INSTITUTE 6993**  
 R/S EVOLUTION OF LOCAL MICROSTRUCTURES SPATIAL INSTABILITIES OF  
 COARSENING CLUSTERS  
 02/24/1998 - 02/23/2002 FY00: \$99,759 Total: \$258,759  
 Prin. Invest.: M E GLUCKSMAN  
 Tech. Officer: MSFC/L B JETER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1488 RENSSELAER POLYTECHNIC INSTITUTE 6994**  
 R/S TRANSIENT DENDRITIC SOLIDIFICATION EXPERIMENT  
 02/24/1998 - 02/23/2002 FY00: \$186,000 Total: \$387,600  
 Prin. Invest.: M B KOSS, M E GLUCKSMAN  
 Tech. Officer: MSFC/A JACKMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1686 RENSSELAER POLYTECHNIC INSTITUTE 6995**  
 FOLLOW-ON RESEARCH ACTIVITIES FOR THE RENSSELAER ISOTHERMAL  
 DENDRITIC GROWTH EXPERIMENT (RIDGE)  
 05/15/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: M E GLUCKSMAN, M B KOSS  
 Tech. Officer: MSFC/P M DOTY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 8 112 RENSSELAER POLYTECHNIC INSTITUTE 6996**  
 VERY ADVANCED HRST EXPLOITING OFF-BOARD BEAMED POWER  
 06/28/1996 - 03/31/1999 FY00: \$0 Total: \$100,559  
 Prin. Invest.: L N MYRABO  
 Tech. Officer: GSFC/J T HOWELL  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 1 52126 RENSSELAER POLYTECHNIC INSTITUTE 6997**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/22/1996 - 06/30/1999 FY00: -\$1 Total: \$54,000  
 Prin. Invest.: T A BLANEHET, W G SAWYER  
 Tech. Officer: LARC/G B NORTHAM, LARC/P O RANSONE  
 CASE Category: 47 - METAL & MATERIALS ENGR

## NASA'S UNIVERSITY PROGRAM

NEW YORK

**NGT 1 52160 RENSSELAER POLYTECHNIC INSTITUTE 6998**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/22/1997 - 09/21/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: K E JARSEN  
 Tech. Officer: LARC/M H CARPENTER  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 3 52341 RENSSELAER POLYTECHNIC INSTITUTE 6999**  
 POWDER LUBRICATED JOURNAL BEARING DEVELOPMENT  
 06/29/1998 - 08/31/2001 FY00: \$22,000 Total: \$64,000  
 Prin. Invest.: J A TICHY  
 Tech. Officer: GRC/D MONTAGANI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50165 RENSSELAER POLYTECHNIC INSTITUTE 7000**  
 SCALABLE INSTRUMENTATION AND DATABASE APPROACH TO  
 PERFORMANCE ANALYSIS OF PARALLEL SCIENTIFIC APPLI  
 06/03/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: B SZMANSKI  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2484 ROCHESTER INSTITUTE OF TECHNOLOGY 7001**  
 SPIN-ON GLASSY ELECTROLYTES FOR THIN-FILM MICROELE CTRONIC  
 BATTERIES  
 09/11/2000 - 08/31/2001 FY00: \$11,545 Total: \$11,545  
 Prin. Invest.: D P RAFFAELLE  
 Tech. Officer: GRC/N HAGEDORN  
 CASE Category: 12 - CHEMISTRY

**NAG 5 3443 ROCHESTER INSTITUTE OF TECHNOLOGY 7002**  
 ABSOLUTE CALIBRATION, ATMOSPHERIC CORRECTION AND A PPLICATION  
 OF LANDSAT-7 ETM +THERMAL INFRARED...  
 11/03/1996 - 12/31/2000 FY00: \$191,551 Total: \$776,378  
 Prin. Invest.: J SCHOTT  
 Tech. Officer: GSFC/D L WILLIAMS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3728 ROCHESTER INSTITUTE OF TECHNOLOGY 7003**  
 DEVELOPMENT OF BACK ILLUMINATED PREAMP PER PIXEL DEVICE  
 ARRAYS  
 02/21/1997 - 12/31/2000 FY00: \$0 Total: \$367,451  
 Prin. Invest.: D NINKOV  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6486 ROCHESTER INSTITUTE OF TECHNOLOGY 7004**  
 CHARACTERIZATION AND DEVELOPMENT OF CHARGE INJECTI ON DEVICE  
 ARRAYS FOR SPACE APPLICATIONS  
 10/31/1997 - 08/31/1999 FY00: \$0 Total: \$129,569  
 Prin. Invest.: D NINKOV  
 Tech. Officer: GSFC/B CAMPBELL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9090 ROCHESTER INSTITUTE OF TECHNOLOGY 7005**  
 A PROGRAM TO DEVELOP HYBRIDIZED 2K X 2K SI PIN ARRAYS FOR SPACE  
 02/17/2000 - 01/31/2001 FY00: \$329,700 Total: \$329,700  
 Prin. Invest.: Z NINKOV  
 Tech. Officer: GSFC/P CRANE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10051 ROCHESTER INSTITUTE OF TECHNOLOGY 7006**  
 FOREST FIRES IMAGING EXPERIMENT SYSTEMS  
 09/29/2000 - 08/31/2001 FY00: \$677,048 Total: \$677,048  
 Prin. Invest.: A VODECEK  
 Tech. Officer: GSFC/E D PAYLOR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 9 1072 ROCHESTER INSTITUTE OF TECHNOLOGY 7007**  
 SUMMER FACULTY DIRECTOR'S GRANT  
 01/20/1999 - 12/31/1999 FY00: -\$15,500 Total: \$0  
 Prin. Invest.: C T WALLINGTON  
 Tech. Officer: JSC/D G SICKOREZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 3 710 ROCHESTER INSTITUTE OF TECHNOLOGY 7008**  
 DEVELOPMENT OF THE NEXT-GENERATION THIN FILM CIGS PHOTOVOL-  
 TAIC SOLAR CELL  
 06/01/1999 - 05/31/2000 FY00: \$0 Total: \$60,159  
 Prin. Invest.: R RAFFAELLE  
 Tech. Officer: GRC/A F HEPP  
 CASE Category: 12 - CHEMISTRY

**NCC 3 786 ROCHESTER INSTITUTE OF TECHNOLOGY 7009**  
 INTEGRATED POWER SOURCES INTEGRATED POWER SOURCES  
 03/23/2000 - 04/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D P RAFFAELLE  
 Tech. Officer: GRC/A F HEPP  
 CASE Category: 13 - PHYSICS

**NCC 3 806 ROCHESTER INSTITUTE OF TECHNOLOGY 7010**  
 SOLID STATE LITHIUM POLYMER ELECTROLYTE DEVELOPMEN T  
 06/07/2000 - 05/31/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D P RAFFAELLE  
 Tech. Officer: GRC/A F HEPP  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 3 807 ROCHESTER INSTITUTE OF TECHNOLOGY 7011**  
 THIN FILM SOLAR CELL PROCESSING AND DEVELOPMENT THIN FILM  
 SOLAR CELL PROCESSING AND DEVELOPMENT  
 06/07/2000 - 05/31/2001 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: D P RAFFAELLE  
 Tech. Officer: GRC/A HEPP  
 CASE Category: 13 - PHYSICS

**NCC13 98001 ST UN NY COL-ENV SCI & FORESTRY 7012**  
 A CENTER FOR EXPLORING AND DEVELOPING COMMERCIAL APPLICA-  
 TIONS OF REMOTE SENSING AND GEO-SPATIAL TEC  
 09/01/1998 - 12/31/2000 FY00: \$150,000 Total: \$350,000  
 Prin. Invest.: P HOPKINS  
 Tech. Officer: SSC/H CARR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 2242 STATE UNIV OF NEW YORK - ALBANY 7013**  
 SURFACE EXCHANGE OBSERVATIONS IN THE CANADIAN BORE AL FOREST  
 REGION  
 04/08/1993 - 04/14/1999 FY00: \$0 Total: \$822,500  
 Prin. Invest.: D B FITZARRALD  
 Tech. Officer: GSFC/F G HALL, GSFC/P SELLARS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4706 STATE UNIV OF NEW YORK - ALBANY 7014**  
 ABUNDANCES AND DISTRIBUTIONS OF VOLATILE ELEMENTS LUNAR  
 VOLCANIC GLASS SPHERES  
 06/11/1997 - 06/30/1999 FY00: \$0 Total: \$35,172  
 Prin. Invest.: D W DELANO  
 Tech. Officer: GSFC/D F NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8227 STATE UNIV OF NEW YORK - ALBANY 7015**  
 DETECTING INTERACTIONS BETWEEN VEGETATION AND THE THE NORTH-  
 EASTERN UNITED STATES  
 09/12/1997 - 09/30/2000 FY00: \$76,247 Total: \$283,284  
 Prin. Invest.: D R FITZJARRALD  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7489 STATE UNIV OF NEW YORK - ALBANY 7016**  
 CASE STUDY INVESTIGATIONS OF LARGE-AMPLITUDE INERT IA-GRAVITY  
 WAVEENVIRONMENTS AND MESOSCALE  
 06/03/1998 - 06/30/2001 FY00: \$35,000 Total: \$129,936  
 Prin. Invest.: L BOSART  
 Tech. Officer: GSFC/A NEGRI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8815 STATE UNIV OF NEW YORK - ALBANY 7017**  
 GENETIC COMPLEXITY IN THE RNA WORLD: AN EXAMINATION OF THE  
 GENETIC LOAD IN RNA POPULATIONS  
 10/06/1999 - 09/30/2000 FY00: \$80,000 Total: \$80,000  
 Prin. Invest.: N E LEHMAN  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9676 STATE UNIV OF NEW YORK - ALBANY 7018**  
 TECHNOLOGY & POLICY ASPECTS OF APPLYING REMOTE SENSING TO  
 FOREST MANAGEMENT IN STATE AGENCIES  
 05/31/2000 - 05/31/2001 FY00: \$275,000 Total: \$275,000  
 Prin. Invest.: P F HOPKINS  
 Tech. Officer: GSFC/A J TUYAHOV  
 CASE Category: 39 - ENVIRONMENTALSCI, OTHER

**NAG 5 9890 STATE UNIV OF NEW YORK - ALBANY 7019**  
 DEVELOPING & TESTING OF NEW TECHNIQUES FOR CONSER- VATIONAL  
 BIOGEOPHYSICAL MINERALEXPLOATION  
 06/19/2000 - 06/30/2001 FY00: \$114,589 Total: \$114,589  
 Prin. Invest.: H MASSONE  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAS 1 18942 STATE UNIV OF NEW YORK - ALBANY 7020**  
 SAGE III SCIENCE SUPPORT - P.I. - DR. V. MOHNEN  
 01/31/1990 - 01/31/2005 FY00: \$70,000 Total: \$517,830  
 Prin. Invest.: V MOHNEN  
 Tech. Officer: LARC/G L MADDREA, LARC/L R MCMASTER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5212 STATE UNIV OF NEW YORK - ALBANY 7021**  
 REVIEW QUALITY ASSURANCE AND APPLICATION OF GLOBAL  
 ATMOSPHERIC RADON DATA  
 04/03/1997 - 05/31/2000 FY00: \$0 Total: \$44,898  
 Prin. Invest.: M KRITZ  
 Tech. Officer: ARC/L PFISTER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 5380 STATE UNIV OF NEW YORK - ALBANY 7022**  
 A PRELIMINARY TEST OF THE CO2 RECTIFIER HYPOTHESIS USING  
 EXISTING UPPER TROPOSPHERIC MEASUREMENTS...  
 04/15/2000 - 04/14/2001 FY00: \$24,300 Total: \$24,300  
 Prin. Invest.: M KRITZ  
 Tech. Officer: ARC/L PFISLER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 283 STATE UNIV OF NEW YORK - ALBANY 7023**  
 PERIODIC, TRANSIENT, AND SPATIALLY INHOMOGENEOUS I NFLUENCES  
 ONC EXCHANGE IN AMAZONIA  
 06/23/1998 - 12/31/2000 FY00: \$289,179 Total: \$873,242  
 Prin. Invest.: D R FRITZJARRALD  
 Tech. Officer: GSFC/D W DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 8 125 STATE UNIV OF NEW YORK - ALBANY 7024**  
 RESEARCH BRINGING GREATLY ENHANCED LAB-BASED PROTEIN CRYSTALLOGRAPHY TO THE US BIOTECHNOLOGY  
 01/16/1997 - 01/14/2001 FY00: \$144,483 Total: \$2,075,346  
 Prin. Invest.: W M GIBSON  
 Tech. Officer: MSFC/K HIGGINBOTHAN  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NGT 5 30061 STATE UNIV OF NEW YORK - ALBANY 7025**  
 COMPARATIVE STUDY OF A VARIETY OF VEGETATION TYPES  
 ATMOSPHERIC SURFACE AND PLANETARY BOUNDARY LAYER  
 09/11/1997 - 08/31/1999 FY00: \$0 Total: \$22,000  
 Prin. Invest.: D R FITZJARRALD  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3886 STATE UNIV OF NEW YORK - BINGHAMTON 7026**  
 MODELS FOR OPTICAL RADIATION REGIME IN VEGETATION STUDIES  
 01/24/1997 - 09/30/1999 FY00: \$0 Total: \$80,513  
 Prin. Invest.: M GOEL  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 1 336 STATE UNIV OF NEW YORK - BINGHAMTON 7027**  
 RELIABILITY CRITERIA-BASED FLIGHT SYSTEM CONTROL MY 1/3  
 04/30/1999 - 01/31/2002 FY00: \$51,100 Total: \$99,895  
 Prin. Invest.: N WU  
 Tech. Officer: LARC/C M BELCASTRO, LARC/C M BELCASTRO  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2238 STATE UNIV OF NEW YORK - BUFFALO 7028**  
 FILTERED MASS DENSITY FUNCTION FOR DESIGN SIMULATIONS OF  
 HIGH SPEED AIRBREATHING PROPULSION SYS.  
 09/20/1999 - 08/31/2002 FY00: \$30,000 Total: \$37,500  
 Prin. Invest.: P GIVI  
 Tech. Officer: LARC/J P DRUMMOND  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 2 1429 STATE UNIV OF NEW YORK - BUFFALO 7029**  
 A NEW SEMI-ACTIVE APPROACH FOR DYNAMIC RESPONSE MODIFICATION OF HELICOPTERS  
 08/11/2000 - 08/11/2001 FY00: \$46,994 Total: \$46,994  
 Prin. Invest.: G LEE  
 Tech. Officer: ARC/C TUNG  
 CASE Category: 41 - AERONAUTICAL ENGR



**NAG 3 2225 STATE UNIV OF NEW YORK - BUFFALO 7030**  
 LARGE EDDY SIMULATION OF GRAVITATIONAL EFFECTS ON TRANSITIONAL  
 AND TURBULENT GAS-JET DIFFUSION FLAME  
 01/22/1999 - 12/10/2002 FY00: \$87,521 Total: \$167,121  
 Prin. Invest.: D GIVI  
 Tech. Officer: GRC/K R SACKSTEDER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3142 STATE UNIV OF NEW YORK - BUFFALO 7031**  
 LANDSCAPE EVOLUTION, A COMPARISON OF FORM AND PROCESS  
 11/09/1995 - 09/30/1999 FY00: -\$2 Total: \$215,529  
 Prin. Invest.: M BARSIK  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4569 STATE UNIV OF NEW YORK - BUFFALO 7032**  
 CONSTRUCTION AND CAPABILITIES OF A ROVER-DEPLOYED PENE-  
 TRATING RADAR  
 07/23/1997 - 06/30/1999 FY00: \$0 Total: \$165,815  
 Prin. Invest.: D GRANT, III  
 Tech. Officer: GSFC/B CAMPBELL  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 8701 STATE UNIV OF NEW YORK - BUFFALO 7033**  
 A ROVER-DEPLOYED GROUND PENETRATING RADAR SYSTEM  
 07/14/1999 - 06/30/2000 FY00: -\$170 Total: \$49,830  
 Prin. Invest.: J GRANT  
 Tech. Officer: GSFC/B BETTS  
 CASE Category: 11 - ASTRONOMY

**NGT 1 52185 STATE UNIV OF NEW YORK - BUFFALO 7034**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/12/1998 - 06/30/2001 FY00: \$22,000 Total: \$54,001  
 Prin. Invest.: K E LEWIS  
 Tech. Officer: LARC/J SOBIESKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 1 52228 STATE UNIV OF NEW YORK - BUFFALO 7035**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 04/18/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: K E LEWIS, T J HALECKI  
 Tech. Officer: LARC/S L PADULA  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 1 2040 STATE UNIV OF NEW YORK - STONY BROOK 7036**  
 SPARC DATA CENTER MY 1/3  
 03/27/1998 - 12/31/2000 FY00: \$60,366 Total: \$179,287  
 Prin. Invest.: M A GELLER  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2065 STATE UNIV OF NEW YORK - STONY BROOK 7037**  
 OCEAN BUOY SHORTWAVE (OBS): A DATA SET FOR SATELLITE RETRIEVAL  
 AND GCM VALIDATION  
 05/01/1998 - 11/30/2000 FY00: \$26,848 Total: \$126,277  
 Prin. Invest.: R A WALISER  
 Tech. Officer: LARC/D S MCDOUGAL, LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2166 STATE UNIV OF NEW YORK - STONY BROOK 7038**  
 SAGE II RESEARCH ON THE CONTROLLING PROCESSES OF UPPER  
 TROPOSPHERIC & STRATOSPHERIC WATER VAPOR  
 03/17/1999 - 06/14/2002 FY00: \$106,000 Total: \$167,000  
 Prin. Invest.: M A GELLER  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1026 STATE UNIV OF NEW YORK - STONY BROOK 7039**  
 CELLULAR MECHANISMS OF SPACEFLIGHT SPECIFIC STRESS IN PLANTS  
 03/05/1998 - 05/31/1999 FY00: \$0 Total: \$423,859  
 Prin. Invest.: A D KRIKORIAN  
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1325 STATE UNIV OF NEW YORK - STONY BROOK 7040**  
 APPLICATIONS OF COMPUTATIONAL GEOMETRY IN AIR TRAF FIC MANAGE-  
 MENT  
 05/19/1999 - 11/30/2000 FY00: \$32,000 Total: \$50,000  
 Prin. Invest.: J S MITCHELL  
 Tech. Officer: ARC/G MEYER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 2 1379 STATE UNIV OF NEW YORK - STONY BROOK 7041**  
 EFFECT OF SIMULATED MICROGRAVITY ONACTIVATED T CEL L GENE  
 TRASCRPTION  
 08/16/1999 - 12/31/2000 FY00: \$89,279 Total: \$124,026  
 Prin. Invest.: M A MORROW  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 2863 STATE UNIV OF NEW YORK - STONY BROOK 7042**  
 THE COMPOSITION, STRUCTURE AND EVOLUTION OF NEUTRO N STARS  
 01/06/1995 - 09/30/1999 FY00: \$0 Total: \$220,998  
 Prin. Invest.: J M LATTIMER  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3135 STATE UNIV OF NEW YORK - STONY BROOK 7043**  
 CONSISTENCY STUDY OF THE ENHANCED SHORTWAVE CLOUD ABSORP-  
 TION USING GEB A DATA  
 11/03/1995 - 05/14/2000 FY00: \$0 Total: \$118,349  
 Prin. Invest.: M ZHANG  
 Tech. Officer: GSFC/M DAH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3261 STATE UNIV OF NEW YORK - STONY BROOK 7044**  
 THE GASEOUS CONTENT OF THE UNIVERSE AT Z  
 06/10/1996 - 04/30/2001 FY00: \$0 Total: \$164,000  
 Prin. Invest.: K M LANZETTA  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3718 STATE UNIV OF NEW YORK - STONY BROOK 7045**  
 LABORATORY SPECTROSCOPIC MEASUREMENTS RELEVANT TO  
 RESEARCH  
 01/24/1997 - 02/28/2001 FY00: \$99,213 Total: \$343,694  
 Prin. Invest.: D VARANABI  
 Tech. Officer: GSFC/D KURYLO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 3950 STATE UNIV OF NEW YORK - STONY BROOK 7046**  
 OPTIMIZATION OF A BIOCHEMICAL COUNTERMEASURE  
 02/12/1997 - 02/14/2001 FY00: \$277,880 Total: \$1,047,235  
 Prin. Invest.: C T RUBIN  
 Tech. Officer: GSFC/V SCHNEIDER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 4043 STATE UNIV OF NEW YORK - STONY BROOK 7047**  
 CIO MEASUREMENTS AND ANALYSIS IN THE NETWORK FOR T STRATO-  
 SPHERIC CHANGE  
 05/06/1997 - 12/31/2000 FY00: \$290,095 Total: \$1,113,516  
 Prin. Invest.: P SOLOMON  
 Tech. Officer: GSFC/M J KURYLO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4071 STATE UNIV OF NEW YORK - STONY BROOK 7048**  
 STRATOPHERIC AND MESOSPHERIC TRACE GAS STUDIES USI MM-WAVE  
 RECEIVERS  
 03/21/1997 - 12/31/2000 FY00: \$0 Total: \$555,549  
 Prin. Invest.: R L DE ZAFRA  
 Tech. Officer: GSFC/M J KURYLO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4498 STATE UNIV OF NEW YORK - STONY BROOK 7049**  
 STUDY OF ENVIRONMENTS FOR PLANET FORMATION  
 05/06/1997 - 07/31/1999 FY00: \$0 Total: \$40,000  
 Prin. Invest.: D J SIMON  
 Tech. Officer: GSFC/J M BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4640 STATE UNIV OF NEW YORK - STONY BROOK 7050**  
 THE STABILITY OF ORBITAL CONFIGURATIONS AND THE UL OF PLANETARY  
 AND SATELLITESYSTEMS  
 06/09/1997 - 03/31/2001 FY00: \$0 Total: \$135,000  
 Prin. Invest.: D J LISSAUER  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4792 STATE UNIV OF NEW YORK - STONY BROOK 7051**  
 A DEEP OBSERVATION OF A WELL-OBSERVED FIELD IN THE AND X-RAY  
 EMISSION FROM PMS STARS: SPLITTING THE  
 06/23/1997 - 06/30/1999 FY00: -\$1 Total: \$16,499  
 Prin. Invest.: F M WALTER  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4862 STATE UNIV OF NEW YORK - STONY BROOK 7052**  
 THE X-RAY SPECTRUM OF AN ISOLATED OLD NEUTRON STAR  
 PHOTOMETRY OF AN ISOLATED NEUTRON STAR, AND CYCLO  
 06/17/1997 - 05/31/1999 FY00: -\$95 Total: \$19,205  
 Prin. Invest.: F M WALTER  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6408 STATE UNIV OF NEW YORK - STONY BROOK 7053**  
 THE HOT CORONAE OF PRE-MAIN SEQUENCE STARS  
 10/10/1997 - 04/14/1999 FY00: \$0 Total: \$32,580  
 Prin. Invest.: F WALTER  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6544 STATE UNIV OF NEW YORK - STONY BROOK 7054**  
 ORBITS OF SATURN'S INNER MOONS AND OTHER OBSERVATI ONS  
 CONNECTED WITH THE 1995-1996 SATURNIAN RING PL  
 10/24/1997 - 12/31/2000 FY00: \$0 Total: \$77,000  
 Prin. Invest.: D LISSAUER  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6565 STATE UNIV OF NEW YORK - STONY BROOK 7055**  
 COLLABORATIVE RESEARCH: MODELING OF N2 AND CO2 FI XATION BY  
 THE OCEANIC DIAZOTROPH TRICHODESMIUM  
 11/03/1997 - 10/31/2000 FY00: \$49,068 Total: \$143,240  
 Prin. Invest.: E CARPENTER  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6601 STATE UNIV OF NEW YORK - STONY BROOK 7056**  
 DEVELOPMENT AND VALIDATION OF A TROPICAL ISOPRENE EMISSION  
 MODEL  
 12/09/1997 - 03/31/2002 FY00: \$0 Total: \$117,349  
 Prin. Invest.: M LERDAU  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6879 STATE UNIV OF NEW YORK - STONY BROOK 7057**  
 STUDIES OF EXCITED SPECIES IN PLANETARY UPPER ATMO SPHERES  
 01/30/1998 - 09/30/2000 FY00: \$0 Total: \$176,400  
 Prin. Invest.: J L FOX  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7134 STATE UNIV OF NEW YORK - STONY BROOK 7058**  
 UARS INVESTIGATIONS OF WAVE-COUPPLING IN THE MIDDLE  
 ATMOSPHERE  
 03/03/1998 - 02/14/2001 FY00: \$84,376 Total: \$225,003  
 Prin. Invest.: D A GELLER  
 Tech. Officer: GSFC/A DOUGLASS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7391 STATE UNIV OF NEW YORK - STONY BROOK 7059**  
 THE SPECTRAL ENERGY DISTRIBUTION OF THE ISOLATED N EUTRON  
 STARRXJ185635-3754  
 05/07/1998 - 05/14/1999 FY00: -\$157 Total: \$12,643  
 Prin. Invest.: F M WALTER  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7875 STATE UNIV OF NEW YORK - STONY BROOK 7060**  
 2+D MODELING EFFORTS FOR SUPERSONIC AIRCRAFT EFFEC TS ON THE  
 ATMOSPHERE NEW GRANT  
 11/30/1998 - 05/31/2000 FY00: \$0 Total: \$50,000  
 Prin. Invest.: M GELLER  
 Tech. Officer: GSFC/R W STEWART  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7978 STATE UNIV OF NEW YORK - STONY BROOK 7061**  
 A COMPREHENSIVE STUDY OF NEUTRON STAR PHOTOSPHERES -  
 (LISA98)  
 01/06/1999 - 12/31/2000 FY00: \$75,000 Total: \$103,000  
 Prin. Invest.: F M WALTER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8106 STATE UNIV OF NEW YORK - STONY BROOK 7062**  
 COSMIC RAYS IN INTERPLANETARY SPACE  
 02/04/1999 - 02/14/2001 FY00: \$116,600 Total: \$242,918  
 Prin. Invest.: D A FORMAN  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8169 STATE UNIV OF NEW YORK - STONY BROOK 7063**  
 SEDIMENTARY GEOCHEMISTRY OF MARTIAN SAMPLES FROM THE PATH-  
 FINDER MISSION  
 02/16/1999 - 02/28/2001 FY00: \$0 Total: \$59,500  
 Prin. Invest.: S M MCLENNAN  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8377 STATE UNIV OF NEW YORK - STONY BROOK 7064**  
 SYSTEMATIC STUDY OF EXPLOSIONS IN CORE COLLAPSE SUPERNOVA -  
 REOB. DUE TO PI TRANSF. FROM NAG5-3099  
 03/08/1999 - 12/31/2000 FY00: \$0 Total: \$28,837  
 Prin. Invest.: F SWETSY  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 8427 STATE UNIV OF NEW YORK - STONY BROOK 7065**  
 ROSAT A08 INVESTIGATION: VARIABILITY IN HYADES G STARS  
 04/26/1999 - 04/30/2000 FY00: \$0 Total: \$10,000  
 Prin. Invest.: F M WALTER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8437 STATE UNIV OF NEW YORK - STONY BROOK 7066**  
 LOW MASS STAR FORMATION IN ORI OB1A & B (ADP 98)  
 04/02/1999 - 03/31/2001 FY00: \$0 Total: \$54,988  
 Prin. Invest.: F M WALTER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8462 STATE UNIV OF NEW YORK - STONY BROOK 7067**  
 STRUCTURE OF PROTOPLANETARY ENVIRONMENTS  
 04/19/1999 - 05/31/2000 FY00: \$0 Total: \$10,000  
 Prin. Invest.: M SIMON  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8980 STATE UNIV OF NEW YORK - STONY BROOK 7068**  
 WERNER BANDS OF H2 IN CIRCUMSTELLAR ENVIRONMENTS OF  
 SELECTED CLASSICAL T TAURI STARS - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$45,500 Total: \$45,500  
 Prin. Invest.: F M WALKER  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9029 STATE UNIV OF NEW YORK - STONY BROOK 7069**  
 SORPTION OF SIMPLE ORGANIC MOLECULES ONTO PYRITE: POSSIBLY AN  
 IMPORTANT STEP IN THE ORIGIN OF LIFE  
 02/08/2000 - 02/14/2001 FY00: \$45,519 Total: \$45,519  
 Prin. Invest.: M A SCHOONEN, NONE  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9053 STATE UNIV OF NEW YORK - STONY BROOK 7070**  
 A SELF-CONSISTENT GLOBAL VELOCITY GRADIENT TENSOR FIELD  
 MODEL  
 02/10/2000 - 02/14/2001 FY00: \$127,500 Total: \$127,500  
 Prin. Invest.: W E HOLT  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9958 STATE UNIV OF NEW YORK - STONY BROOK 7071**  
 THE EVOLUTION OF STELLAR CORONAE FROM THE PMS THROUGH THE  
 ZAMS  
 09/13/2000 - 09/14/2001 FY00: \$28,000 Total: \$28,000  
 Prin. Invest.: F M WALTER  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 1696 STATE UNIV OF NEW YORK - STONY BROOK 7072**  
 MICROGRAVITY PROCESSING OF POLYMER THIN FILMS  
 06/02/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: M RAFAILOVICH  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 12 - CHEMISTRY

**NAG 5 1700 STATE UNIV OF NEW YORK - STONY BROOK 7073**  
 DEFECTS NUMERICALLY DECREASED (DENUDE)  
 08/07/2000 - 11/30/2003 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: D LARSON  
 Tech. Officer: MSFC/P M DOTY  
 CASE Category: 13 - PHYSICS

**NAG 5 98142 STATE UNIV OF NEW YORK - STONY BROOK 7074**  
 CERES SCIENCE INVESTIGATIONS  
 10/29/1998 - 10/31/2000 FY00: \$155,869 Total: \$308,535  
 Prin. Invest.: R D CESS  
 Tech. Officer: LARC/B A WIELICKI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 126 STATE UNIV OF NEW YORK - STONY BROOK 7075**  
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH  
 10/05/1995 - 02/15/2000 FY00: \$0 Total: \$324,251  
 Prin. Invest.: GELLER  
 Tech. Officer: GSFC/B CARLSON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 342 STATE UNIV OF NEW YORK - STONY BROOK 7076**  
 INTERDISCIPLINARY GLOBAL CHANGE RESEARCH  
 06/23/1998 - 03/14/2001 FY00: \$43,098 Total: \$136,741  
 Prin. Invest.: M GELLER  
 Tech. Officer: GSFC/B CARLSON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

<b>NCC 8 93 STATE UNIV OF NEW YORK - STONY BROOK 7077</b> COMBINED SYNCHROTRON WHITE X-RAY TOPOGRAPHY & HIGH RESOLUTION TRIPLE AXIS X-RAY DIFFRACTION CHARACTERIZATION 04/22/1996 - 03/31/2001 FY00: \$44,577 Total: \$418,563 <i>Prin. Invest.:</i> M DUDLEY, R J MATYI <i>Tech. Officer:</i> MSFC/C TALLEY, MSFC/F R SZOFRAN CASE Category: 13 - PHYSICS	<b>NAG 5 4157 STATE UNIV OF NEW YORK COLL - PURCHASE 7085</b> EVOLUTION OF VALLEY NETWORKS 04/16/1997 - 04/30/2001 FY00: \$38,743 Total: \$82,328 <i>Prin. Invest.:</i> D GRANT, III <i>Tech. Officer:</i> GSFC/P ROGER CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NCC 8 100 STATE UNIV OF NEW YORK - STONY BROOK 7078</b> RESEARCH ENTITLED "ORBITAL PROCESSING OF EUTECTICS 06/13/1996 - 10/31/2000 FY00: \$49,999 Total: \$656,249 <i>Prin. Invest.:</i> D LARSON <i>Tech. Officer:</i> MSFC/T TURNER CASE Category: 49 - ENGINEERING, OTHER	<b>NAG 5 4691 STATE UNIV OF NEW YORK COLL - PURCHASE 7086</b> CARBON AND NITROGEN ABUNDANCES IN INTERPLANETARY TO PREBIOTIC ORGANIC MATTER ON EARTH 06/26/1997 - 10/31/2001 FY00: \$23,550 Total: \$73,550 <i>Prin. Invest.:</i> D J FLYNN <i>Tech. Officer:</i> GSFC/M A MEYER CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)
<b>NCC 8 164 STATE UNIV OF NEW YORK - STONY BROOK 7079</b> CRYSTAL GROWTH OF ZNSE AND RELATED TERNARY COMPOUND SEMICONDUCTORS BY VAPOR TRANSPORT 10/15/1998 - 10/14/1999 FY00: \$0 Total: \$40,000 <i>Prin. Invest.:</i> M DUDLEY <i>Tech. Officer:</i> MSFC/C H SU CASE Category: 19 - PHYSICAL SCIENCE, OTHER	<b>NAG 5 4843 STATE UNIV OF NEW YORK COLL - PURCHASE 7087</b> TRACE ELEMENT ABUNDANCE DETERMINATION OF COSMIC DUST 06/27/1997 - 06/30/2000 FY00: \$0 Total: \$120,000 <i>Prin. Invest.:</i> D J FLYNN <i>Tech. Officer:</i> GSFC/D NAVA CASE Category: 11 - ASTRONOMY
<b>NGT 5 30124 STATE UNIV OF NEW YORK - STONY BROOK 7080</b> ENVIRONMENTAL CONTROLS OVER 2-METHYL-3-BUTEN-2-OL 09/30/1997 - 08/31/2001 FY00: \$0 Total: \$66,000 <i>Prin. Invest.:</i> M LERDAU/GRAY <i>Tech. Officer:</i> GSFC/M Y WEI CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 5 7502 STATE UNIV OF NEW YORK COLL - PURCHASE 7088</b> ACQUISITION OF NEAR-TROPOPAUSE METEOROLOGICAL DATA FROM COMMERCIAL AIR-CRAFT 06/02/1998 - 08/30/1999 FY00: \$0 Total: \$54,000 <i>Prin. Invest.:</i> J TENENBAUM <i>Tech. Officer:</i> GSFC/J A KAYE CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NGT 5 50322 STATE UNIV OF NEW YORK - STONY BROOK 7081</b> EVOLUTION OF THE THREE-DIMENSIONAL MOISTURE STRUCTURE ASSOCIATED WITH THE LIFE CYCLE OF THE MADDEN 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> D WALISER <i>Tech. Officer:</i> GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 8499 STATE UNIV OF NEW YORK COLL - PURCHASE 7089</b> DETERMINATION OF GEOS ANALYSIS ERRORS NEAR STRONG JET STREAMS USING HIGHRESOLUTION MODELS & AIRCRAFT 06/14/1998 - 06/30/2000 FY00: \$0 Total: \$50,000 <i>Prin. Invest.:</i> J TENENBAUM, NONE <i>Tech. Officer:</i> GSFC/H M HELFAND CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 6102 STATE UNIV OF NEW YORK COL - PLATTSBURGH 7082</b> CARBON CHARACTERIZATION, ELEMENT ABUNDANCES AND X-RAY MEASUREMENTS ON AH84001 07/25/1997 - 06/30/1999 FY00: \$0 Total: \$40,000 <i>Prin. Invest.:</i> G J FLYNN <i>Tech. Officer:</i> GSFC/J BOYCE CASE Category: 11 - ASTRONOMY	<b>NAG 5 9370 STATE UNIV OF NEW YORK COLL - PURCHASE 7090</b> VALIDATION AND IMPROVEMENT OF DAO ANALYSES USING FLIGHT DATA RECORDER OBSERVATIONS 04/12/2000 - 03/31/2001 FY00: \$68,000 Total: \$68,000 <i>Prin. Invest.:</i> J TENENBAUM <i>Tech. Officer:</i> GSFC/M HELFAND CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 9 1109 STATE UNIV OF NEW YORK COL - PLATTSBURGH 7083</b> JSC ASTROBIOLOGY INSTITUTE 05/11/1999 - 05/13/2001 FY00: \$25,000 Total: \$50,000 <i>Prin. Invest.:</i> G J FLYNN <i>Tech. Officer:</i> JSC/E K GIBSON CASE Category: 13 - PHYSICS	<b>NAG 3 2464 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7091</b> DYNAMICS OF AEROSOL PARTICLES IN STATIONARY ISOTROPIC TURBULENCE 06/16/2000 - 11/30/2003 FY00: \$20,000 Total: \$20,000 <i>Prin. Invest.:</i> H MENG <i>Tech. Officer:</i> GRC/F P CHIARAMONTE 111 CASE Category: 49 - ENGINEERING, OTHER
<b>NAG 5 3169 STATE UNIV OF NEW YORK COLL - PURCHASE 7084</b> DETERMINATION OF GEOS ANALYSIS ERRORS NEAR STRONG JET STREAMS USING HIGHRESOLUTION MODELS & AIRCRAFT 04/15/1996 - 06/30/1999 FY00: \$0 Total: \$205,000 <i>Prin. Invest.:</i> J TENENBAUM <i>Tech. Officer:</i> GSFC/H M HELFAND CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 5 4544 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7092</b> PLANETARY GEOLOGY AND GEOPHYSICS UNDERGRADUATE RESEARCH 05/13/1997 - 03/31/2001 FY00: \$0 Total: \$204,086 <i>Prin. Invest.:</i> GREGG <i>Tech. Officer:</i> GSFC/J G GRANT CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7579 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7093**  
 FUNDING FOR 'DEBRIS FLOW HAZARD ASSESSMENT, PICO D E ORIZABA,  
 MEXICO'(SENH98-0089)  
 08/04/1998 - 01/31/2001 FY00: \$100,000 Total: \$250,000  
 Prin. Invest.: M F SHERIDAN  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7581 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7094**  
 FUNDING FOR 'TEPHROSTRATIGRAPHIC AND SATELLITE IMA GERY ANAL-  
 YSIS OF THE KAMCHATKAN SHORELINE...' (SE  
 08/04/1998 - 01/31/2001 FY00: \$25,000 Total: \$100,000  
 Prin. Invest.: M BURSİK  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NGT 8 52861 STATE UNIV OF NEW YORK COLLEGE, BUFFALO 7095**  
 ORIGIN OF CELLULAR PROCESSES ON EARTH  
 07/27/1998 - 06/30/2000 FY00: -\$1,301 Total: \$20,699  
 Prin. Invest.: G R WILSKY  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 1 1797 SYRACUSE UNIVERSITY 7096**  
 CENTER FOR TRAINING AND RESEARCH IN HYPERSONICS  
 01/24/1996 - 01/31/2000 FY00: \$1 Total: \$300,001  
 Prin. Invest.: J E LA GRAFF, E F SPINE  
 Tech. Officer: LARC/S MASSENBERG  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 1853 SYRACUSE UNIVERSITY 7097**  
 BEHAVIOR OF RAPIDLY SHEARED BUBBLY SUSPENSIONS  
 05/01/1996 - 04/30/2001 FY00: \$68,000 Total: \$793,431  
 Prin. Invest.: A S SANGANI, D L KOCH  
 Tech. Officer: GRC/H K NAHRA, GRC/B MOTIL  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 3 2089 SYRACUSE UNIVERSITY 7098**  
 THREE-DIMENSIONAL VISCOUS INVERSE METHOD WITH ENDW ALL  
 EFFECTS  
 03/17/1998 - 12/31/2001 FY00: \$92,618 Total: \$211,521  
 Prin. Invest.: T DANG  
 Tech. Officer: GRC/J R WOOD  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2250 SYRACUSE UNIVERSITY 7099**  
 MEASUREMENT OF TURBULENT PRESSURE AND TEMPERATURE FLUC-  
 TUATIONS IN A GAS TURBINE COMBUSTOR  
 03/31/1999 - 12/31/1999 FY00: -\$204 Total: \$39,796  
 Prin. Invest.: J E LAGRAFF  
 Tech. Officer: GRC/G J VAN FOSSEN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2309 SYRACUSE UNIVERSITY 7100**  
 WORKSHOP ON BOUNDARY LAYER TRANSITION AND UNSTEADY  
 ASPECTS OF TURBOMACHINERY FLOWS  
 12/10/1999 - 12/31/2000 FY00: \$6,000 Total: \$6,000  
 Prin. Invest.: D E LAGRAFF  
 Tech. Officer: GRC/D ASHPIS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2419 SYRACUSE UNIVERSITY 7101**  
 MEASUREMENT OF TURBULENT PRESSURE AND TEMPERATURE FLUC-  
 TUATIONS IN A GAS TURBINE COMBUSTOR  
 05/11/2000 - 09/30/2002 FY00: \$70,077 Total: \$70,077  
 Prin. Invest.: D LAGRAFF  
 Tech. Officer: GRC/D A POVINELLI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2427 SYRACUSE UNIVERSITY 7102**  
 RAPIDLY SHEARED BUBBLY SUSPENSIONS RAPIDLY SHEARED BUBBLY  
 SUSPENSIONS  
 05/24/2000 - 04/30/2005 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: D SANGANI  
 Tech. Officer: GRC/H K NAHRA  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 6822 SYRACUSE UNIVERSITY 7103**  
 STUDIES OF REACTIONS ON INTERSTELLAR GRAIN ANALOGU ES IN A  
 UV-RICH ENVIRONMENT  
 01/12/1998 - 12/31/2000 FY00: \$73,476 Total: \$229,476  
 Prin. Invest.: G VIDALI  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9093 SYRACUSE UNIVERSITY 7104**  
 ENERGETICS OF MOLECULAR HYDROGEN FORMATION  
 02/17/2000 - 01/31/2001 FY00: \$65,940 Total: \$65,940  
 Prin. Invest.: G VIDALI  
 Tech. Officer: GSFC/P CRANE  
 CASE Category: 11 - ASTRONOMY

**NGT 1 52169 SYRACUSE UNIVERSITY 7105**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/07/1997 - 12/31/1999 FY00: \$0 Total: \$49,500  
 Prin. Invest.: M A KEGERISE, E F SPINA  
 Tech. Officer: LARC/C B MCGINLEY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAS 8 99151 UNION COLLEGE 7106**  
 THERMOPLASTIC COMPOSITE LINES  
 09/24/1999 - 05/24/2000 FY00: \$0 Total: \$118,000  
 Prin. Invest.: R B BUCINELL  
 Tech. Officer: MSFC/A T NETTLES  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 2 1142 UNIVERSITY OF ROCHESTER 7107**  
 PROPOSAL FOR INFRARED SUBMILLIMETER, AND RADIO AST RONOMY  
 07/22/1997 - 05/31/2001 FY00: \$389,916 Total: \$1,479,766  
 Prin. Invest.: W J FORREST, J L PIPHER  
 Tech. Officer: ARC/C R MCCREIGHT, ARC/R E MCMURRAY  
 CASE Category: 13 - PHYSICS

**NAG 2 1280 UNIVERSITY OF ROCHESTER 7108**  
 DEVELOPMENT OF DETECTOR ARRAYS FOR LOW-BACKGROUND SPACE  
 ASTRONOMY  
 01/12/1999 - 12/14/2000 FY00: \$65,000 Total: \$130,000  
 Prin. Invest.: W J FORREST  
 Tech. Officer: ARC/C R MCCREIGHT  
 CASE Category: 45 - ELECTRICAL ENGR

## NORTH CAROLINA

## NASA'S UNIVERSITY PROGRAM

**NAG 3 2348 UNIVERSITY OF ROCHESTER 7109**  
 LIQUID CRYSTAL POINT-DIFFRACTION INTERFEROMETER (L CPDI)  
 MATERIALS AND DEVICES FOR MICROGRAVITY FLUI  
 03/08/2000 - 11/30/2003 FY00: \$38,500 Total: \$38,500  
 Prin. Invest.: K MARSHALL Prin. Invest.: NONE  
 Tech. Officer: GRC/D GRIFFIN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3369 UNIVERSITY OF ROCHESTER 7110**  
 A SEARCH FOR BORWN DWARFS IN THE HAYDES  
 08/28/1996 - 08/31/1999 FY00: \$0 Total: \$192,300  
 Prin. Invest.: W J FORREST  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4976 UNIVERSITY OF ROCHESTER 7111**  
 DEVELOPMENT OF GE:GA BLOCKED-IMPURITY-BAND DETECTO RED  
 ASTRONOMY  
 07/10/1997 - 06/01/2000 FY00: \$0 Total: \$305,000  
 Prin. Invest.: D M WATSON  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6119 UNIVERSITY OF ROCHESTER 7112**  
 SUNSPOT DYNAMICS  
 08/08/1997 - 03/31/2001 FY00: \$0 Total: \$173,100  
 Prin. Invest.: D H THOMAS  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6267 UNIVERSITY OF ROCHESTER 7113**  
 DEVELOPMENT OF LOW DARK CURRENT, HIGH QUANTUM EFFI R  
 PASSIVELY COOLED SPACE EXPERIMENTS  
 08/21/1997 - 06/30/2001 FY00: \$104,562 Total: \$805,562  
 Prin. Invest.: D L PIPHER  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8428 UNIVERSITY OF ROCHESTER 7114**  
 THE PHYSICS OF RADIATIVE MHD JETS: A NUMERICAL STUDY OF MAGNE-  
 TIZED YSO OUTFLOWS  
 06/02/1999 - 06/14/2000 FY00: \$0 Total: \$104,000  
 Prin. Invest.: A FRANK  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8642 UNIVERSITY OF ROCHESTER 7115**  
 DEVELOPMENT OF 2 - 10 MICRON HGCOTE ARRAYS FOR EXP LORER  
 MISSIONS AND SOFIA  
 07/08/1999 - 06/30/2001 FY00: \$263,710 Total: \$492,402  
 Prin. Invest.: J L PIPHER  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9351 UNIVERSITY OF ROCHESTER 7116**  
 DEVELOPMENT OF EXTRINSIC GERMANIUM BLOCKED-IMPURIT Y-BAND  
 DETECTOR ARRAYSFOR FAR-INFRARED ASTRONOMY  
 03/30/2000 - 03/31/2001 FY00: \$298,000 Total: \$298,000  
 Prin. Invest.: D M WATSON  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 13 - PHYSICS

**NAG 8 1382 UNIVERSITY OF ROCHESTER 7117**  
 EN VIVO HEMOPOIESIS IN 3-DIMENSIONAL HUMAN BONE MARROW  
 CULTURE UNDER SIMULATED MICROGRAVITY  
 07/09/1997 - 07/08/2001 FY00: \$195,000 Total: \$519,000  
 Prin. Invest.: D WU  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 2 5321 UNIVERSITY OF ROCHESTER 7118**  
 A CLINICAL EVALUATION OF COOLING THERAPY FOR MULTI PLE SCLE-  
 ROSIS  
 05/03/1999 - 12/31/1999 FY00: \$0 Total: \$78,287  
 Prin. Invest.: S R SCHWID  
 Tech. Officer: ARC/B LONA, ARC/B W WEBBON  
 CASE Category: 56 - MEDICL

**NCC 3 860 UNIVERSITY OF ROCHESTER 7119**  
 WAVEGUIDE COUPLING APPLIED TO AN INTEGRATED THIN F ILM NOX  
 SENSOR  
 01/06/1999 - 09/24/2000 FY00: \$0 Total: \$34,980  
 Prin. Invest.: T G BROWN  
 Tech. Officer: GRC/M L TUMA  
 CASE Category: 13 - PHYSICS

**NGT 5 104 UNIVERSITY OF ROCHESTER 7120**  
 THE NUCLEATION OF REFRACTORY VAPORS & ITS IMPACT ON  
 ASTROPHYSICAL PROCESSES/STUDENT: DANIEL MARTINE  
 05/25/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R H HEIST  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 43 - CHEMICAL ENGR

## NORTH CAROLINA

**NAG 2 1002 DUKE UNIVERSITY 7121**  
 EXPRESSION OF CONTRACTILE PROTEIN ISOFORMS IN MICR OGRAVITY  
 08/25/1995 - 06/30/2000 FY00: \$22,000 Total: \$165,846  
 Prin. Invest.: P ANDERSON  
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1377 DUKE UNIVERSITY 7122**  
 EVOLUTION OF GENE REGULATORY SYSTEM: STRUCTURAL & FUNC-  
 TIONAL ANALYSES OF EVOLUTIONARY DIVERSIFICAT  
 08/19/1999 - 09/30/2001 FY00: \$131,034 Total: \$194,893  
 Prin. Invest.: G A WRAT  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1838 DUKE UNIVERSITY 7123**  
 DENSITY EQUILIBATION IN FLUIDS NEAR THE LIQUID-VAPOR CRITICAL  
 POINT  
 04/22/1996 - 04/30/2001 FY00: \$83,000 Total: \$350,000  
 Prin. Invest.: H MEYER  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 1917** **DUKE UNIVERSITY** **7124**  
 DYNAMICS OF GRANULAR MATERIAL  
 07/15/1996 - 07/15/2000 FY00: \$60,000 Total: \$472,000  
 Prin. Invest.: R BEHRINGER  
 Tech. Officer: GRC/E NELSON  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2372** **DUKE UNIVERSITY** **7125**  
 GRAVITY AND GRANULAR MATERIALS GRAVITY AND GRANULAR MATERIALS  
 04/07/2000 - 11/30/2003 FY00: \$65,100 Total: \$65,100  
 Prin. Invest.: R P BEHRINGER  
 Tech. Officer: GRC/R A WILKINSON  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3665** **DUKE UNIVERSITY** **7126**  
 A STUDY OF CARBON MONOXIDE USING TRACE CONSTITUENT DATA ASSIMILATION: A NEW APPROACH IN GLOBAL ....  
 01/15/1997 - 12/31/2000 FY00: \$0 Total: \$646,175  
 Prin. Invest.: P KABIBHATLA  
 Tech. Officer: GSFC/R ROOD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6482** **DUKE UNIVERSITY** **7127**  
 CENTER OF EXCELLENCE IN REMOTE SENSING FOR INTEGRATED LANDSCAPE CHANGE  
 11/18/1997 - 09/30/1999 FY00: \$0 Total: \$210,000  
 Prin. Invest.: P N HALPIN  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6988** **DUKE UNIVERSITY** **7128**  
 REPRESENTING KEY PHYTOPLANKTON GROUPS IN OCEAN CARBON CYCLE MODELS  
 02/20/1998 - 02/14/2000 FY00: \$28,101 Total: \$176,894  
 Prin. Invest.: R T BARBER  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 7155** **DUKE UNIVERSITY** **7129**  
 REQUEST FOR PARTIAL SUPPORT FOR THE WORKSHOP ON INVERSE MODELING OF GLOBAL BIOGEOCHEMICAL CYCLE  
 03/03/1998 - 12/31/1999 FY00: -\$4,235 Total: \$33,565  
 Prin. Invest.: P KASIBHATLA  
 Tech. Officer: GSFC/J A KAYE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8533** **DUKE UNIVERSITY** **7130**  
 TO WHAT EXTENT CAN INCREASED EVAPOTRANSPIRATION DUE TO GROUNDWATER BASED IRRIGATION IN THE GREAT  
 07/02/1999 - 07/14/2001 FY00: \$78,944 Total: \$130,408  
 Prin. Invest.: S ROJSTACZER  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9348** **DUKE UNIVERSITY** **7131**  
 PHYSICAL VARIABILITY, ECOSYSTEM RESPONSE & BIOGEOCHEMICAL CONSEQUENCES IN THE PACIFIC OCEAN: UNDERS  
 03/28/2000 - 04/30/2003 FY00: \$118,785 Total: \$118,785  
 Prin. Invest.: R T BARBER  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9805** **DUKE UNIVERSITY** **7132**  
 CONTINUED DEVELOPMENT & APPLICATION OF DATA ASSIMILATION TECHNIQUES FOR TROPOSPHERIC CHEMISTRY STUDY  
 05/31/2000 - 05/31/2001 FY00: \$128,286 Total: \$128,286  
 Prin. Invest.: P KASIBHATLA  
 Tech. Officer: GSFC/P DECOLA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 966** **DUKE UNIVERSITY** **7133**  
 CRYSTALLIZATION OF SOLUTION PROPERTIES OF REDESIGNED PROTEIN SURFACES  
 08/10/1993 - 12/31/1998 FY00: -\$74 Total: \$215,665  
 Prin. Invest.: D C RICHARDSON  
 Tech. Officer: MSFC/D CARTER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1581** **DUKE UNIVERSITY** **7134**  
 R/S DIFFERENTIATION AND MAINTENANCE OF SKELETAL AND CARDIAC MUSCLE IN SIMULATED GRAVITY  
 03/01/1999 - 11/30/2002 FY00: \$156,000 Total: \$248,000  
 Prin. Invest.: W E KRAUS  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1715** **DUKE UNIVERSITY** **7135**  
 RESEARCH ENTITLED: DYNAMIC STRUCTURAL MODELING AND TESTING OF THIN-FILM STRUCTURE.  
 03/23/2000 - 06/02/2003 FY00: \$59,074 Total: \$59,074  
 Prin. Invest.: L N VIRGIN, K N SLADE  
 Tech. Officer: MSFC/M TINKER, MSFC/L CURTIS  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 8 1736** **DUKE UNIVERSITY** **7136**  
 AN INVESTIGATION OF THE GEOMETRICAL SCALING PROPERTIES OF INFLATABLE STRUCTURES  
 09/06/2000 - 09/06/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: L N VIRGIN, K N SLADE  
 Tech. Officer: MSFC/M L TINKER  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 9 810** **DUKE UNIVERSITY** **7137**  
 SKELETAL MUSCLE DEVELOPMENT & DIFFERENTIATION IN VITRO BY MECHANICAL & CHEMICAL FACTORS  
 09/13/1995 - 09/02/1999 FY00: \$0 Total: \$590,758  
 Prin. Invest.: W E KRAUS  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 1 250** **DUKE UNIVERSITY** **7138**  
 ACTIVE CONTROL STRATEGIES AND TRANSDUCTION DEVICE FOR INTERIOR NOISE CONTROL  
 02/06/1997 - 12/31/1999 FY00: \$13,517 Total: \$292,500  
 Prin. Invest.: R L CLARK  
 Tech. Officer: LARC/D E COX  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 5 233** **DUKE UNIVERSITY** **7139**  
 A GROUND-TRUTHING PROGRAM IN SUPPORT OF THE VEGETATION MISSION.  
 09/03/1997 - 08/31/2000 FY00: \$0 Total: \$39,437  
 Prin. Invest.: D L URBAN  
 Tech. Officer: GSFC/R KNOX  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

<b>NCC 9 83</b>	<b>DUKE UNIVERSITY</b>	<b>7140</b>			
PREBREATHE REDUCTION PROTOCOL					
03/11/1999 - 06/10/2003	FY00: \$125,000	Total: \$275,000			
Prin. Invest.: R VANN					
Tech. Officer: JSC/M GERNHARDT					
CASE Category: 99 - MULTI INTERDISCIPL, OTHER					
<b>NGT 2 52236</b>	<b>DUKE UNIVERSITY</b>	<b>7141</b>			
UTILIZATION OF KNOW PHYLOGENIES FOR ASSESSING & IM PROVING RECONSTRUCTION OF THE HISTORY OF LIFE....					
09/23/1997 - 07/31/2000	FY00: \$0	Total: \$86,000			
Prin. Invest.: C CUNNINGHAM					
Tech. Officer: ARC/K W CULLINGS, ARC/M L FONDA					
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)					
<b>NGT 2 52248</b>	<b>DUKE UNIVERSITY</b>	<b>7142</b>			
A NEW APPROACH TO LARGE-SCALE PROBABILISTIC PLANNING					
08/25/1998 - 08/31/2000	FY00: \$0	Total: \$44,000			
Prin. Invest.: M L LITTMAN					
Tech. Officer: ARC/K P GOLDEN					
CASE Category: 22 - COMPUTER SCIENCE					
<b>NGT 5 69</b>	<b>DUKE UNIVERSITY</b>	<b>7143</b>			
A REGIONAL ASSESSMENT OF THE RATE AND DIRECTION OF CHANGE IN SOIL ORGANIC CARBON POOLS DUE TO LAND					
05/28/1998 - 09/14/2001	FY00: \$22,000	Total: \$62,100			
Prin. Invest.: B SCHLESINGER					
Tech. Officer: GSFC/M S BURRELL					
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER					
<b>NGT 5 30105</b>	<b>DUKE UNIVERSITY</b>	<b>7144</b>			
EFFECTS OF PLANT-SOIL INTERACTIONS ON CARBON STORAGE IN A CHESAPEAKE BAY MARSH: DOES ELEVATED CO2?					
10/24/1997 - 08/31/2000	FY00: \$0	Total: \$66,000			
Prin. Invest.: D REYNOLDS					
Tech. Officer: GSFC/M WEI					
CASE Category: 99 - MULTI INTERDISCIPL, OTHER					
<b>NGT 5 30117</b>	<b>DUKE UNIVERSITY</b>	<b>7145</b>			
THE EFFECTS OF WILDFIRE ON CARBON CYCLING IN SOILS OF INTERIOR ALASKA ESSF RECIPIENT: KATHERINE O'NE					
10/01/1997 - 08/31/2000	FY00: \$0	Total: \$66,000			
Prin. Invest.: D RICHTER					
Tech. Officer: GSFC/G ASRAR					
CASE Category: 99 - MULTI INTERDISCIPL, OTHER					
<b>NGT 5 30355</b>	<b>DUKE UNIVERSITY</b>	<b>7146</b>			
EFFECTS OF PRECIPITATION VARIABILITY & DESERTIFICATION ON WATER DYNAMICS IN ARID LANDS: A PATCH & LA					
08/24/2000 - 08/31/2001	FY00: \$22,000	Total: \$22,000			
Prin. Invest.: J REYNOLDS					
Tech. Officer: GSFC/M WEI					
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER					
<b>NGT 5 50224</b>	<b>DUKE UNIVERSITY</b>	<b>7147</b>			
VARYING EOLIAN DUST INPUTS AND SPATIOTEMPORAL PATTERNS OF CHANGE ON CARIBBEAN CORAL REEFS					
09/29/1998 - 08/31/2001	FY00: \$22,000	Total: \$66,000			
Prin. Invest.: R T BARBER, M HAYES					
Tech. Officer: HQ/A NURRIDIN					
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER					
<b>NGT 5 50286</b>	<b>DUKE UNIVERSITY</b>	<b>7148</b>			
CYTOSKELETAL CONTRIBUTIONS TO CHANGES IN ELASTICITY OF MAMMALIAN MYOCYTES AFTER CYCLIC MECHANICAL					
07/07/1999 - 06/30/2000	FY00: \$0	Total: \$22,000			
Prin. Invest.: G TRUSKEY					
Tech. Officer: GSFC/L SMITH					
CASE Category: 99 - MULTI INTERDISCIPL, OTHER					
<b>NGT 8 52842</b>	<b>DUKE UNIVERSITY</b>	<b>7149</b>			
GRADUATE STUDENT RESEARCH PROGRAM					
07/30/1997 - 08/31/2000	FY00: \$0	Total: \$86,000			
Prin. Invest.: L N VIRGIN					
Tech. Officer: MSFC/J DOWDY					
CASE Category: 46 - MECHANICAL ENGR					
<b>NAG 2 6045</b>	<b>EAST CAROLINA UNIVERSITY</b>	<b>7150</b>			
SC2000/SC2001 COMPUTATIONAL SCIENCE LEADERSHIP PROGRAM FOR HIGH SCHOOL TEACHERS					
08/23/2000 - 07/31/2001	FY00: \$54,000	Total: \$54,000			
Prin. Invest.: J C HUSKAMP					
Tech. Officer: ARC/J P ZIEBARTH, ARC/M J LEON					
CASE Category: 22 - COMPUTER SCIENCE					
<b>NCC 2 1165</b>	<b>EAST CAROLINA UNIVERSITY</b>	<b>7151</b>			
HYPERGRAVITY EFFECTS ON THE MATERNAL-FETAL SYSTEM					
03/27/2000 - 12/14/2000	FY00: \$29,016	Total: \$29,016			
Prin. Invest.: H W BURDEN					
Tech. Officer: ARC/A E RONCA/E M HOLTON					
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)					
<b>NAG 1 2229</b>	<b>ELIZABETH CITY STATE UNIVERSITY</b>	<b>7152</b>			
A PILOT COMPUTER AIDED DESIGN AND MANUFACTURING CURRICULUM THAT PROMOTES ENGINEERING					
09/15/1999 - 07/31/2001	FY00: \$25,000	Total: \$125,000			
Prin. Invest.: E LAWRENCE					
Tech. Officer: LARC/G D REESE					
CASE Category: 22 - COMPUTER SCIENCE					
<b>NAG 3 2150</b>	<b>ELIZABETH CITY STATE UNIVERSITY</b>	<b>7153</b>			
CONTROLLING CHAOS IN JOSEPHSON JUNCTION CONTROLLING CHAOS IN JOSEPHSON JUNCTION					
04/07/1998 - 05/31/2001	FY00: \$81,424	Total: \$244,272			
Prin. Invest.: D SENGUPTA, S K KANA, K D EDOH					
Tech. Officer: GRC/M ANDRO, GRC/E J PETRIK					
CASE Category: 21 - MATHEMATICS					
<b>NAG 5 6814</b>	<b>ELIZABETH CITY STATE UNIVERSITY</b>	<b>7154</b>			
DR. C.D. TURNAGE PRE-COLLEGE AWARDS FOR EXCELLENCE IN MATHEMATICS, SCIENCE, ENGINEERING AND TECHNOLOGY					
01/05/1998 - 11/30/1999	FY00: \$0	Total: \$200,000			
Prin. Invest.: S SACHDEV					
Tech. Officer: GSFC/STOUTSENBERGER					
CASE Category: 99 - MULTI INTERDISCIPL, OTHER					
<b>NAG 5 9371</b>	<b>ELIZABETH CITY STATE UNIVERSITY</b>	<b>7155</b>			
MATHEMATICS OF THE GREAT DISMAL SWAMP					
04/06/2000 - 03/31/2001	FY00: \$102,000	Total: \$102,000			
Prin. Invest.: L HAYDEN					
Tech. Officer: GSFC/N KHAZIE					
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER					



**NAG 5 9372 ELIZABETH CITY STATE UNIVERSITY 7156**  
 YOU BE THE SCIENTIST WITH SATELLITE IMAGERY IN EX/ EC COMMUNI-  
 TITIES  
 04/06/2000 - 03/31/2001 FY00: \$95,000 Total: \$95,000  
 Prin. Invest.: L B HAYDEN  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG10 252 ELIZABETH CITY STATE UNIVERSITY 7157**  
 PROVIDE RESEARCH EXPERIENCES FOR SOCIALLY AND ECONOMICALLY  
 DISADVANTAGED STUDENTS  
 08/12/1998 - 07/31/1999 FY00: \$0 Total: \$50,000  
 Prin. Invest.: E LAWRENCE  
 Tech. Officer: KSC/R MC KINNEY  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 5 121 ELIZABETH CITY STATE UNIVERSITY 7158**  
 REGIONAL NETWORK RESOURCES AND TRAINING SITE AT ECSU  
 08/15/1995 - 08/14/2001 FY00: \$391,000 Total: \$2,624,000  
 Prin. Invest.: L HAYDEN  
 Tech. Officer: GSFC/J BENNETT  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 1 1928 FAYETTEVILLE STATE UNIVERSITY 7159**  
 PRESERVICE/INSERVICE/MODEL FOR TEACHING INTEGRATED MATH/SCI-  
 ENCE WITH TECHNOLOGY (TIMS/T)  
 05/20/1997 - 07/31/1999 FY00: \$0 Total: \$0  
 Prin. Invest.: L EDWARD, JR.  
 Tech. Officer: LARC/S CANRIGHT, LARC/E PRIOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2227 FAYETTEVILLE STATE UNIVERSITY 7160**  
 TEACHING INTEGRATED MATHEMATICS AND SCIENCE WITH TECHNOLOGY  
 AND NASA RESOURCES: A PARTNERSHIP  
 08/23/1999 - 07/31/2001 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: L EDWARDS Prin. Invest.: NONE  
 Tech. Officer: LARC/S MASSENBERG  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2072 FAYETTEVILLE STATE UNIVERSITY 7161**  
 GENERATING ELECTRONIC MATERIALS (GEM) FOR TEACHING /LEARNING  
 MATHEMATIC AND SCIENCE TEACHER TRAINING  
 07/28/1997 - 04/15/2000 FY00: \$14,997 Total: \$81,997  
 Prin. Invest.: L EDWARDS  
 Tech. Officer: GRC/R F LAWRENCE  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 5 6095 FAYETTEVILLE STATE UNIVERSITY 7162**  
 PACE/MSET AWARD  
 09/10/1997 - 08/31/1999 FY00: \$0 Total: \$200,000  
 Prin. Invest.: L EDWARDS  
 Tech. Officer: GSFC/M STOUTSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9155 FAYETTEVILLE STATE UNIVERSITY 7163**  
 MATHEMATICS/SCIENCE EDUCATION CENTER PRECOLLEGE PROGRAM  
 03/03/2000 - 02/28/2003 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: L EDWARDS  
 Tech. Officer: GSFC/M STOUTSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 90055 FAYETTEVILLE STATE UNIVERSITY 7164**  
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)  
 03/13/1997 - 05/31/1999 FY00: \$0 Total: \$84,325  
 Prin. Invest.: L EDWARDS  
 Tech. Officer: GSFC/R LAWRENCE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 3 2022 JOHNSON C. SMITH UNIVERSITY 7165**  
 CONSERVATION/SOLUTION METHOD (STE) FOR LINEAR POTE NTIAL FLOW  
 PROBLEMS  
 03/10/1997 - 12/31/1999 FY00: -\$1,346 Total: \$98,590  
 Prin. Invest.: J O ADEYEYE  
 Tech. Officer: GRC/J R SCOTT  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 3 2290 JOHNSON C. SMITH UNIVERSITY 7166**  
 OPTIMUM DESIGN OF PASSIVE MILLIMETER WAVE IMAGING WITH SUPER-  
 RAYLEIGH RESOLUTION OF APPLICATION TO  
 09/02/1999 - 08/31/2000 FY00: \$0 Total: \$55,000  
 Prin. Invest.: M F ATTIA  
 Tech. Officer: GRC/I M BLANKSON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2300 JOHNSON C. SMITH UNIVERSITY 7167**  
 THE DEVELOPMENT OF A PASSIVE MILLIMETER WAVE IMAGI NG SYSTEM  
 WITH SUPER-RESOLUTION  
 11/16/1999 - 12/31/2002 FY00: \$97,596 Total: \$97,596  
 Prin. Invest.: D E MILLER  
 Tech. Officer: GRC/D M BLANKSON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 956 NORTH CAROLINA A&T STATE UNIVERSITY 7168**  
 A SPACE TECHNOLOGY DEVELOPMENT AND UTILIZATION PROGRAM  
 01/13/1989 - 05/31/1999 FY00: -\$166,260 Total: \$6,102,864  
 Prin. Invest.: L SHARPE, A HOMAIFAR, A CHOWDHURY  
 Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1874 NORTH CAROLINA A&T STATE UNIVERSITY 7169**  
 PHENYLETHYNYL CONTAINING POLYARYLENE ETHERS/ POLYIMIDES  
 RESIN INFILTRATION OF COMPOSITES  
 09/27/1996 - 09/30/2000 FY00: \$1 Total: \$300,001  
 Prin. Invest.: D O DUNN  
 Tech. Officer: LARC/B J JENSEN  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 1 1956 NORTH CAROLINA A&T STATE UNIVERSITY 7170**  
 APPROACHES TO DESIGN AND EVALUATION OF SANDWICH COMPOSITES  
 07/10/1997 - 10/31/2000 FY00: \$20,000 Total: \$177,000  
 Prin. Invest.: K N SHIVAKUMAR  
 Tech. Officer: LARC/D R AMBUR, LARC/C C POE  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 1 2225 NORTH CAROLINA A&T STATE UNIVERSITY 7171**  
 ACCESS TO SPACE THROUGH RESEARCH AND EDUCATION MY 1/2  
 08/24/1999 - 07/31/2001 FY00: \$25,000 Total: \$125,000  
 Prin. Invest.: F FERGUSON  
 Tech. Officer: LARC/R S CALLOWAY, LARC/B K OUTLAW  
 CASE Category: 41 - AERONAUTICAL ENGR

<p><b>NAG 2 1150 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7172</b>  MOTION PLANNING IN A SOCIETY OF INTELLIGENT MOBILE AGENTS  08/22/1997 - 12/31/1999 FY00: \$0 Total: \$221,468  Prin. Invest.: A C ESTERLINE  Tech. Officer: ARC/G S LEE  CASE Category: 29 - MATH/COMPUTER SCI, OTHER</p>	<p><b>NAG 4 131 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7180</b>  ARTIFICIAL POTENTIAL FIELD BASED MOTION PLANNING/ NAVIGATION IN 2 &amp; 3 DIMENSIONAL DYNAMIC ENVIRON.  06/06/1997 - 05/31/2000 FY00: \$0 Total: \$354,016  Prin. Invest.: A V HOMAIFAR  Tech. Officer: DFRC/K GUPTA  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 2 1413 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7173</b>  MOTION PLANNING IN A SOCIETY OF INTELLIGENT MOBILE AGENTS  07/05/2000 - 06/14/2001 FY00: \$120,416 Total: \$120,416  Prin. Invest.: A C ESTERLINE  Tech. Officer: ARC/M G SHATTO  CASE Category: 22 - COMPUTER SCIENCE</p>	<p><b>NAG 4 132 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7181</b>  HYBRID MOTION PLANNING WITH MULTIPLE DESTINATIONS NEW AWARD  06/10/1997 - 06/30/2000 FY00: \$0 Total: \$273,294  Prin. Invest.: J CLOUSE  Tech. Officer: DFRC/K GUPTA  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 2 1430 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7174</b>  COMBUSTION SENSORS: GAS TURBINE APPLICATIONS  08/16/2000 - 09/30/2001 FY00: \$143,397 Total: \$143,397  Prin. Invest.: M HUMAN  Tech. Officer: ARC/G ZILLIAC  CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NAG 4 152 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7182</b>  INVESTIGATION OF AERO SERVO STRUCTURAL INTERACTIO IN AERO-SPACE APPLICATIONS  03/23/1998 - 03/19/2001 FY00: \$100,000 Total: \$300,000  Prin. Invest.: S CHANDRA  Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 2 6028 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7175</b>  RONALD E. MCNAIR GRADUATE RESEARCH FELLOWSHIP PROG RAM  02/22/1999 - 02/14/2001 FY00: \$323,500 Total: \$647,000  Prin. Invest.: M R SALAMI, L SHARPE  Tech. Officer: ARC/A J HATCH  CASE Category: 45 - ELECTRICAL ENGR</p>	<p><b>NAG 4 211 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7183</b>  DEVELOPMENT AND EVALUATION OF FAULT-TOLERANT FLIGH T CONTROL SYSTEMS  06/26/2000 - 06/14/2003 FY00: \$100,000 Total: \$100,000  Prin. Invest.: D D SONG  Tech. Officer: DFRC/K GUPTA  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 3 1734 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7176</b>  COMPUTATIONAL ASSESSMENT OF FAN BY-PASS SYSTEM DES IGNIN ADVANCED DUCT PROPULSORS  04/01/1995 - 03/31/2000 FY00: \$0 Total: \$240,682  Prin. Invest.: S CHANDRA, F FERGUSON, R KRISHNAMURTHY  Tech. Officer: GRC/K J KACYNSKI  CASE Category: 41 - AERONAUTICALENGNR</p>	<p><b>NAG 5 4102 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7184</b>  FORMAL FOUNDATIONS OF AGENTS  03/31/1997 - 11/30/1999 FY00: \$0 Total: \$295,567  Prin. Invest.: A ESTERLINE  Tech. Officer: GSFC/W TRUSZKOWSKI  CASE Category: 22 - COMPUTER SCIENCE</p>
<p><b>NAG 3 1835 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7177</b>  ROBUST, BRILLOUIN ACTIVE EMBEDDED FIBER-IS-THE-SEN SOR SYSTEM IN SMART COMPOSITE  04/22/1996 - 05/31/2000 FY00: \$0 Total: \$283,936  Prin. Invest.: D YU  Tech. Officer: GRC/E B CLARK  CASE Category: 45 - ELECTRICAL ENGR</p>	<p><b>NAG 5 7158 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7185</b>  SELF-TIMED SYNCHRONOUS DIGITAL SYSTEM DESIGN  03/11/1998 - 12/14/2000 FY00: \$99,475 Total: \$199,028  Prin. Invest.: D S VAINSTEIN  Tech. Officer: GSFC/P CORONADO  CASE Category: 45 - ELECTRICAL ENGR</p>
<p><b>NAG 3 2165 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7178</b>  DEVELOPMENT OF A STRUCTURAL DAMAGE DIAGNOSTIC AND MONITORING SYSTEM FOR ROCKETENGINES PHASE I: DAMA  06/11/1998 - 10/31/2000 FY00: \$0 Total: \$90,000  Prin. Invest.: Y ELLEN, L SHARPE  Tech. Officer: GRC/D F NOGA, GRC/A L JANKOVSKY  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 5 8170 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7186</b>  NATIONAL CONFERENCE OF BLACK PHYSICS STUDENTS  03/06/2000 - 03/14/2001 FY00: \$77,708 Total: \$77,708  Prin. Invest.: E WILLIAMS  Tech. Officer: GSFC/J A JACKSON  CASE Category: 13 - PHYSICS</p>
<p><b>NAG 4 118 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7179</b>  MULTIDISCIPLINARY MODELING &amp; SIMULATION OF AEROSPACE VEHICLE SYSTEMS  03/27/1997 - 09/30/2000 FY00: \$0 Total: \$99,998  Prin. Invest.: M HUMAN  Tech. Officer: DFRC/K K GUPTA, DFRC/L S VOELKER  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 9419 NORTH CAROLINA A&amp;T STATE UNIVERSITY 7187</b>  LOW-POWER RF SOI-CMOS TECHNOLOGY FOR DISTRIBUTED SENSOR NETWORKS  04/11/2000 - 04/30/2001 FY00: \$100,000 Total: \$100,000  Prin. Invest.: N DOGAN  Tech. Officer: GSFC/J MALONE  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>

## NASA'S UNIVERSITY PROGRAM

## NORTH CAROLINA

**NAG 8 1142 NORTH CAROLINA A&T STATE UNIVERSITY 7188**  
 ROCKET ENGINE STUDY  
 05/15/1995 - 12/31/1999 FY00: \$0 Total: \$69,729  
 Prin. Invest.: K JONES  
 Tech. Officer: MSFC/J RUF  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 8 1247 NORTH CAROLINA A&T STATE UNIVERSITY 7189**  
 DEVELOPMENT & TESTING OF A VIBROMETRY TECHNIQUE FOR HEALTH  
 MONITORING OF COMPOSITE MATERIAL STRUCT  
 10/31/1996 - 10/31/1999 FY00: \$0 Total: \$284,507  
 Prin. Invest.: D J SCHULZ  
 Tech. Officer: MSFC/C WILKERSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1396 NORTH CAROLINA A&T STATE UNIVERSITY 7190**  
 R/S "SOLUTION POLYMERIZATION OF THERMOSETS IN 1-G AND  
 MICROGRAVITY ENVIRONMENT"  
 08/28/1997 - 12/31/1999 FY00: -\$6,512 Total: \$187,234  
 Prin. Invest.: A P KENNEDY  
 Tech. Officer: MSFC/B PENN  
 CASE Category: 12 - CHEMISTRY

**NAG 8 1632 NORTH CAROLINA A&T STATE UNIVERSITY 7191**  
 POLYMERIZATION OF ADVANCED THERMOSETS IN MICRO- GRAVITY TO  
 DEVELOP ULTRA LOW LOSS POLYMERS  
 09/17/1999 - 08/31/2000 FY00: \$0 Total: \$99,983  
 Prin. Invest.: A KENNEDY  
 Tech. Officer: MSFC/A BEAM, MSFC/W LOVE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1646 NORTH CAROLINA A&T STATE UNIVERSITY 7192**  
 STRUCTURAL HEALTH MONITORING OF AEROSPACE VEHICLES  
 09/30/1999 - 09/30/2001 FY00: \$20,000 Total: \$120,000  
 Prin. Invest.: N  
 Tech. Officer: MSFC/A BEAM, MSFC/W LOVE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1707 NORTH CAROLINA A&T STATE UNIVERSITY 7193**  
 ALLIANCE FOR LEARNING AND VISION FOR UNDER- REPRESENTED AMER-  
 ICANS PROGRAM (ALVA)  
 01/31/2000 - 01/20/2001 FY00: \$47,025 Total: \$47,025  
 Prin. Invest.: E CHEEK  
 Tech. Officer: MSFC/W LOVE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 973 NORTH CAROLINA A&T STATE UNIVERSITY 7194**  
 INTELLIGENT AGENTS-BASED SCHEDULING  
 09/25/1997 - 09/30/2000 FY00: \$0 Total: \$132,947  
 Prin. Invest.: B RAM  
 Tech. Officer: JSC/J D ERICK SUN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG10 201 NORTH CAROLINA A&T STATE UNIVERSITY 7195**  
 CLEANING OF CONTAMINATED SUBSTRATES  
 10/23/1996 - 12/22/2000 FY00: \$0 Total: \$284,083  
 Prin. Invest.: G WHITE  
 Tech. Officer: KSC/G ALLEN  
 CASE Category: 43 - CHEMICAL ENGR

**NAS 3 96055 NORTH CAROLINA A&T STATE UNIVERSITY 7196**  
 NEW MECHANISTIC CONSTITUTIVE MODEL FOR HIGH TEMPERATURE  
 CMCS UNDER MONOTONIC CYCLIC LOADING  
 11/05/1996 - 09/30/1999 FY00: \$0 Total: \$120,000  
 Prin. Invest.: J SANKAR, A D KELKAR  
 Tech. Officer: GRC/R BHATT, GRC/E HANES  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 1 255 NORTH CAROLINA A&T STATE UNIVERSITY 7197**  
 THE CENTER FOR AEROSPACE RESEARCH: A NASA CENTER OF EXCEL-  
 LENCE  
 05/13/1997 - 12/31/2000 FY00: \$1,000,000 Total: \$3,700,000  
 Prin. Invest.: E O DOSE  
 Tech. Officer: LARC/W WHIGGLOW, JR.  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 987 NORTH CAROLINA A&T STATE UNIVERSITY 7198**  
 PERFORMANCE MODELING OF A PILOT IN A FREE-FLIGHT MODE  
 04/10/1997 - 04/30/1999 FY00: -\$109 Total: \$153,891  
 Prin. Invest.: C A NTUEN  
 Tech. Officer: ARC/R K DISMAKES  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 3 576 NORTH CAROLINA A&T STATE UNIVERSITY 7199**  
 AEROTHERMO STRUCTURAL ANALYSIS OF LOW COST COMPOSITE  
 NOZZLE/INLET COMPONENTS  
 09/19/1997 - 08/15/2000 FY00: \$0 Total: \$499,494  
 Prin. Invest.: K N SHIVAKUMAR, D SREE  
 Tech. Officer: GRC/D R REDDY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 5 349 NORTH CAROLINA A&T STATE UNIVERSITY 7200**  
 INTEGRATION OF NASA RESEARCH INTO UNDERGRADUATE EDUCATION  
 IN MATHEMATICS, SCIENCE, ENGINEERING AND TECHNOLOGY  
 06/29/1998 - 06/30/2003 FY00: \$500,000 Total: \$1,500,000  
 Prin. Invest.: A D KELKAR  
 Tech. Officer: GSFC/B WHITE  
 CASE Category: 99 - MULTIINTERDISCIPL, OTHER

**NGT 1 52178 NORTH CAROLINA A&T STATE UNIVERSITY 7201**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 09/12/1997 - 09/11/2000 FY00: \$0 Total: \$86,000  
 Prin. Invest.: F VAINSTEIN, R P WILSON  
 Tech. Officer: LARC/S E WOODARD, LARC/J N JUANG  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NGT 2 52201 NORTH CAROLINA A&T STATE UNIVERSITY 7202**  
 RONALD E MCNAIR GRADUATE RESEARCH FELLOWSHIP PROGRAM  
 09/14/1995 - 12/31/1998 FY00: -\$2,953 Total: \$967,547  
 Prin. Invest.: J C KELLY  
 Tech. Officer: ARC/A J HATCH  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 4 52409 NORTH CAROLINA A&T STATE UNIVERSITY 7203**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/04/1999 - 07/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: S CHANDRA, S WYLLIE  
 Tech. Officer: DFRC/K GUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1829 NORTH CAROLINA STATE UNIV. - RALEIGH 7204**  
 ACTIVE CONTROL OF CAVITY NOISE-EXPERIMENT AND COMPUTATION  
 04/09/1996 - 04/08/1999 FY00: -\$1 Total: \$139,537  
 Prin. Invest.: N D CHOKANI  
 Tech. Officer: LARC/R W WLEZIEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1961 NORTH CAROLINA STATE UNIV. - RALEIGH 7205**  
 CRACK TURNING MECHANICS OF COMPOSITE WING SKIN PANELS  
 12/17/1997 - 10/31/2000 FY00: \$54,702 Total: \$302,885  
 Prin. Invest.: F G YUAN  
 Tech. Officer: LARC/C C POE, LARC/I S RAJU  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1991 NORTH CAROLINA STATE UNIV. - RALEIGH 7206**  
 STUDY OF HIGH LIFT CONFIGURATIONS  
 01/12/1998 - 01/11/2000 FY00: -\$3,997 Total: \$111,004  
 Prin. Invest.: H A HASSAN  
 Tech. Officer: LARC/R D JOSLIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2086 NORTH CAROLINA STATE UNIV. - RALEIGH 7207**  
 AN INVESTIGATION OF TERMINAL GUIDANCE AND CONTROL TECHNIQUES  
 FOR A ROBOTIC MARS LANDER  
 07/14/1998 - 05/15/1999 FY00: -\$785 Total: \$29,163  
 Prin. Invest.: G D WALBERG, B BIRGE  
 Tech. Officer: LARC/R D BRAUN, LARC/E M QUEEN  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 1 2216 NORTH CAROLINA STATE UNIV. - RALEIGH 7208**  
 ALGORITHMIC ENHANCEMENTS FOR THE VULCAN NAVIER-STOKES  
 SOLVER  
 08/09/1999 - 08/30/2002 FY00: \$13,000 Total: \$35,000  
 Prin. Invest.: J R EDWARDS  
 Tech. Officer: LARC/J A WHITE, LARC/J P DRUMMOND  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2222 NORTH CAROLINA STATE UNIV. - RALEIGH 7209**  
 AN INVESTIGATION OF TERMINAL GUIDANCE & CONTROL TECHNIQUES  
 FOR A ROBOTIC MARS LANDER  
 08/08/1999 - 05/15/2001 FY00: \$47,356 Total: \$62,356  
 Prin. Invest.: G O WALBERG, B K BIRGE  
 Tech. Officer: LARC/E M QUEEN, LARC/R W POWELL  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 1 2287 NORTH CAROLINA STATE UNIV. - RALEIGH 7210**  
 MODEL DEVELOPMENT FOR HIGH PERFORMANCE PIEZOCERAMIC-BASED  
 ACTUATORS  
 03/30/2000 - 12/31/2000 FY00: \$28,000 Total: \$28,000  
 Prin. Invest.: R C SMITH  
 Tech. Officer: LARC/J S HARRISON/R G BRYANT  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 2 1115 NORTH CAROLINA STATE UNIV. - RALEIGH 7211**  
 VIRTUAL PROTOTYPING FOR CARBON NANOTUBES & THEIR COMPOSI-  
 TIONS  
 02/14/1997 - 02/29/2000 FY00: -\$113,436 Total: \$81,904  
 Prin. Invest.: B I YAKOBSON  
 Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1119 NORTH CAROLINA STATE UNIV. - RALEIGH 7212**  
 COMPUTATIONAL STUDY OF NANOMETER-SCALE DEVICE OPERATION &  
 ENGINEERING  
 02/20/1997 - 09/30/2000 FY00: \$0 Total: \$253,912  
 Prin. Invest.: D W BRENNER, C K HALL  
 Tech. Officer: ARC/C LEVIT, ARC/D A BAILEY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1281 NORTH CAROLINA STATE UNIV. - RALEIGH 7213**  
 VISUAL FACTORS AFFECTING PILOT'S JUDGEMENTS OF TRAJECTORY-  
 TO-TOUCHDOWN DURING EMERGENCY LANDINGS  
 01/11/1999 - 12/31/2000 FY00: \$99,999 Total: \$185,999  
 Prin. Invest.: D H MERSHON, C M MAYER  
 Tech. Officer: ARC/I BARSHI  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 5 2254 NORTH CAROLINA STATE UNIV. - RALEIGH 7214**  
 THE PHYSICAL FOUNDATIONS OF PARTICLE ACCELERATION BY COLLI-  
 SIONLESS SHOCKS IN SPACE  
 04/27/1993 - 09/30/1999 FY00: \$0 Total: \$658,789  
 Prin. Invest.: D C ELLISON  
 Tech. Officer: GSFC/J GREBOWSKY, GSFC/J D BOHLIN  
 CASE Category: 13 - PHYSICS

**NAG 5 3743 NORTH CAROLINA STATE UNIV. - RALEIGH 7215**  
 NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING IN BIOLOGY  
 03/19/1997 - 03/14/2001 FY00: \$889,982 Total: \$3,502,394  
 Prin. Invest.: E DAVIES  
 Tech. Officer: GSFC/D P LISKOWSKY  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 4802 NORTH CAROLINA STATE UNIV. - RALEIGH 7216**  
 THE ROLE OF CONVECTION OVER THE GULF OF MEXICO IN STREAM  
 INTERACTIONS RESULTING IN RECENT EXTREME EA  
 08/09/1997 - 07/31/2000 FY00: \$0 Total: \$316,507  
 Prin. Invest.: M KAPLAN  
 Tech. Officer: GSFC/A NWGRI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6520 NORTH CAROLINA STATE UNIV. - RALEIGH 7217**  
 SEAWIFS DATA COLLECTION, CALIBRATION AND PROCESSING FOR THE  
 INDIAN OCEAN  
 02/12/1998 - 01/31/2001 FY00: \$0 Total: \$102,105  
 Prin. Invest.: J MORRISON  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6586 NORTH CAROLINA STATE UNIV. - RALEIGH 7218**  
 REFINING REMOTE SENSING ESTIMATES OF NUTRIENT CONCENTRA-  
 TIONS BASED ON TEMPERATURE  
 11/07/1997 - 04/30/2001 FY00: \$64,459 Total: \$189,527  
 Prin. Invest.: D KAMYKOWSKI  
 Tech. Officer: GSFC/J A MARRA  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 7153 NORTH CAROLINA STATE UNIV. - RALEIGH 7219**  
 X-RAY EMISSION AND DYNAMICS OF SUPERNOVA REMNANTS - ATP  
 03/31/1998 - 03/14/2001 FY00: \$127,170 Total: \$382,170  
 Prin. Invest.: S P REYNOLDS  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

<b>NAG 5 7406 NORTH CAROLINA STATE UNIV. - RALEIGH 7220</b> DUST DESTRUCTION IN SUPERNOVA REMNANTS - ASCA PROP OSAL 05/28/1998 - 11/30/1999 FY00: \$0 Total: \$10,499 Prin. Invest.: K BORKOWSKI Tech. Officer: GSFC/N WHITE CASE Category: 11 - ASTRONOMY	<b>NAGW 1331 NORTH CAROLINA STATE UNIV. - RALEIGH 7228</b> SPACE ENGINEERING RESEARCH CENTER 07/12/1988 - 03/31/1999 FY00: -\$106,671 Total: \$11,257,473 Prin. Invest.: F R DEJARNETTE Tech. Officer: HQ/S M WANDER CASE Category: 49 - ENGINEERING, OTHER
<b>NAG 5 7942 NORTH CAROLINA STATE UNIV. - RALEIGH 7221</b> A GENERIC DESIGN METHODOLOGY FOR DEVELOPMENT OF HIGH PERFORMANCE REMOTE SENSING SCIENCE DATA PROCESS 01/27/1999 - 01/31/2000 FY00: \$0 Total: \$50,000 Prin. Invest.: C GLOSTER, JR. Tech. Officer: GSFC/P S GHUMAN CASE Category: 22 - COMPUTER SCIENCE	<b>NAS 1 18944 NORTH CAROLINA STATE UNIV. - RALEIGH 7229</b> SAGE III SCIENCE INVESTIGATION SUPPORT; P.I. PROFESSOR SAXENA 10/06/1989 - 01/31/2005 FY00: \$105,000 Total: \$467,637 Prin. Invest.: V SAXENA Tech. Officer: LARC/G MADDREA CASE Category: 19 - PHYSICAL SCIENCE, OTHER
<b>NAG 5 8215 NORTH CAROLINA STATE UNIV. - RALEIGH 7222</b> EDUCATIONAL OUTREACH FOR RESEARCH "PRODUCTION OF ENERGETIC PARTICLES AT HELIOSPHERIC SHOCKS". THIS 03/04/1999 - 10/31/2000 FY00: \$0 Total: \$9,975 Prin. Invest.: D C ELLISON Tech. Officer: GSFC/J M GREBOWSKY CASE Category: 13 - PHYSICS	<b>NAS 1 99097 NORTH CAROLINA STATE UNIV. - RALEIGH 7230</b> ENHANCEMENT OF TAPPS FOR AVOSS DEMONSTRATION 06/03/1999 - 12/01/2000 FY00: \$177,000 Total: \$302,000 Prin. Invest.: Y L LIN, M L KAPLAN Tech. Officer: LARC/F H PROCTOR CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 8865 NORTH CAROLINA STATE UNIV. - RALEIGH 7223</b> SEAWIFS DATA COLLECTION, CALIBRATION & PROCESSING FOR THE INDIAN OCEAN 12/06/1999 - 01/31/2001 FY00: \$65,025 Total: \$65,025 Prin. Invest.: J MORRISON Tech. Officer: GSFC/J MARRA CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NCC 1 188 NORTH CAROLINA STATE UNIV. - RALEIGH 7231</b> NUMERICAL MODELING STUDIES OF WAKE VORTEX TRANSPORT AND EVOLUTION WITHIN THE PLANETARY BOUNDARY LAYER 01/11/1994 - 04/06/2000 FY00: \$36,950 Total: \$1,249,701 Prin. Invest.: Y L LIN, S P ARYA, M L KAPLAN Tech. Officer: LARC/F H PROCTOR, LARC/D A HINTON CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 9490 NORTH CAROLINA STATE UNIV. - RALEIGH 7224</b> SOFTWARE PACKAGE FOR ANALYSIS OF THERMAL X-RAY SPECTRA OF SUPERNOVA REMNANTS 04/17/2000 - 04/14/2001 FY00: \$87,400 Total: \$87,400 Prin. Invest.: K J BORKOWSKI Tech. Officer: GSFC/J BREDEKAMP CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 1 220 NORTH CAROLINA STATE UNIV. - RALEIGH 7232</b> AN OPERATIONAL COMPUTATIONAL TERMINAL AREA PBL PREDICTION SYSTEM 01/23/1996 - 09/22/1999 FY00: -\$789 Total: \$611,230 Prin. Invest.: Y L LIN, M L KAPLAN Tech. Officer: LARC/F H PROCTOR CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 8 1479 NORTH CAROLINA STATE UNIV. - RALEIGH 7225</b> R/S GROWTH AND PROPERTIES OF CARBON 03/19/1998 - 01/31/2002 FY00: \$100,000 Total: \$263,333 Prin. Invest.: J BERNHOLC Tech. Officer: MSFC/C TALLEY CASE Category: 19 - PHYSICAL SCIENCE, OTHER	<b>NCC 1 335 NORTH CAROLINA STATE UNIV. - RALEIGH 7233</b> DETAILED MEASUREMENTS IN CAVITY SHEAR LAYER WITH OSCILLATORY BLOWING CONTROL 04/09/1999 - 05/31/2000 FY00: \$32 Total: \$28,323 Prin. Invest.: N CHOKANI Tech. Officer: LARC/R D JOSLIN CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 8 1686 NORTH CAROLINA STATE UNIV. - RALEIGH 7226</b> OPTICAL CHARACTERIZATION OF GAS PHASE CHEMISTRY AND SURFACE CHEMISTRY DURING HIGH PRESSURE PROCESS 05/09/2000 - 12/31/2003 FY00: \$50,000 Total: \$50,000 Prin. Invest.: N DIETZ Tech. Officer: MSFC/P DOTY CASE Category: 19 - PHYSICAL SCIENCE, OTHER	<b>NCC 1 407 NORTH CAROLINA STATE UNIV. - RALEIGH 7234</b> RESEARCH ON STREAMLINES AND AERODYNAMIC HEATING FOR UNSTRUCTURED GRIDS ON HIGH SPEED VEHICLES 08/28/2000 - 12/31/2000 FY00: \$24,675 Total: \$24,675 Prin. Invest.: F R DEJARNETTE Tech. Officer: LARC/H H HAMILTON CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 9 1087 NORTH CAROLINA STATE UNIV. - RALEIGH 7227</b> INTEGRATED PRESSURE BLADDER-RESTRAINT STRUCTURE FOR ADVANCED EXTRAVEHICULAR MOBILITY UNIT 02/12/1999 - 02/11/2001 FY00: \$41,297 Total: \$81,144 Prin. Invest.: M H MOHAMAD Tech. Officer: JSC/C H LIN CASE Category: 47 - METAL & MATERIALS ENGR	<b>NCC 8 95 NORTH CAROLINA STATE UNIV. - RALEIGH 7235</b> FUNDAMENTAL ASPECTS OF VAPOR DEPOSITION AND ETCHING UNDER DIFFUSION CONTROLLED TRANSPORT 05/31/1996 - 08/31/2000 FY00: \$41,000 Total: \$691,133 Prin. Invest.: K J BACHMANN Tech. Officer: MSFC/S SPEARMAN, MSFC/J GRISHAM CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## NORTH CAROLINA

## NASA'S UNIVERSITY PROGRAM

<p><b>NCC 8 159 NORTH CAROLINA STATE UNIV. - RALEIGH 7236</b>            APPLICATION OF REMOTE SENSING TECHNOLOGIES IN THE FOREST SECTOR            10/28/1998 - 10/27/2003 FY00: \$20,000 Total: \$120,000  <i>Prin. Invest.:</i> R ABT  <i>Tech. Officer:</i> MSFC/J ARNOLD            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NGT 5 65 NORTH CAROLINA STATE UNIV. - RALEIGH 7244</b>            GSRP TRAINING GRANT - KRISTY DYER - THERMAL AND NO N-THERMAL PHYSICS OF COUNGSPERNOVA REMNANTS            05/27/1998 - 08/14/2001 FY00: \$22,000 Total: \$66,000  <i>Prin. Invest.:</i> S O REYNOLDS  <i>Tech. Officer:</i> GSFC/M S BURRELL            CASE Category: 13 - PHYSICS</p>
<p><b>NGT 1 52125 NORTH CAROLINA STATE UNIV. - RALEIGH 7237</b>            GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)            05/15/1996 - 12/31/1999 FY00: -\$284 Total: \$85,717  <i>Prin. Invest.:</i> L H LEE, E M AFIFY  <i>Tech. Officer:</i> LARC/G B NORTHAM, LARC/P O RANSONE            CASE Category: 47 - METAL &amp; MATERIALS ENGR</p>	<p><b>NGT 5 30054 NORTH CAROLINA STATE UNIV. - RALEIGH 7245</b>            CONSTRAINING CARBON MONOXIDE SOURCES BY MODELING ITS STABLE ISOTOPES            10/24/1997 - 08/31/2001 FY00: \$0 Total: \$68,000  <i>Prin. Invest.:</i> D REICHL  <i>Tech. Officer:</i> GSFC/A GHASSEM            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NGT 1 52164 NORTH CAROLINA STATE UNIV. - RALEIGH 7238</b>            GRADUATE STUDENT RESEARCH PROGRAM            08/04/1997 - 08/24/1999 FY00: -\$11,819 Total: \$32,182  <i>Prin. Invest.:</i> O J MYERS  <i>Tech. Officer:</i> LARC/H N ZUMBRUN, LARC/M G FLECK            CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NGT 5 30192 NORTH CAROLINA STATE UNIV. - RALEIGH 7246</b>            WATER, HEAT AND SALT BUDGET IN THE NORTHERN INDIAN OCEAN/STUDENT: WEI SHI            08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  <i>Prin. Invest.:</i> J M MORRISON  <i>Tech. Officer:</i> GSFC/M WEI            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NGT 1 52172 NORTH CAROLINA STATE UNIV. - RALEIGH 7239</b>            GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)            06/30/1997 - 06/30/2000 FY00: \$12,000 Total: \$66,001  <i>Prin. Invest.:</i> F R DE JARNETTE, K E HARWELL  <i>Tech. Officer:</i> LARC/H H HAMILTON, LARC/E V ZOBY            CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NGT 5 40011 NORTH CAROLINA STATE UNIV. - RALEIGH 7247</b>            TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.            01/30/1997 - 02/28/2001 FY00: \$259,550 Total: \$977,050  <i>Prin. Invest.:</i> F R DEJARNETTE  <i>Tech. Officer:</i> GSFC/D DETROYE            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NGT 1 52177 NORTH CAROLINA STATE UNIV. - RALEIGH 7240</b>            GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)            09/03/1997 - 09/02/1999 FY00: -\$2,183 Total: \$41,818  <i>Prin. Invest.:</i> H A HASSAN  <i>Tech. Officer:</i> LARC/S P WILKINSON            CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 9195 SHAW UNIVERSITY 7248</b>            SHAW UNIVERSITY MSET PRE-COLLEGE EXPERIENCE            03/10/2000 - 02/28/2001 FY00: \$93,810 Total: \$93,810  <i>Prin. Invest.:</i> K SATAGOPAN  <i>Tech. Officer:</i> GSFC/M STOUTSENBERGER            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NGT 1 52183 NORTH CAROLINA STATE UNIV. - RALEIGH 7241</b>            GRADUATE STUDENTS RESEARCHERS PROGRAM (GSRP)            08/31/1998 - 06/30/2000 FY00: \$0 Total: \$44,000  <i>Prin. Invest.:</i> M SMITH  <i>Tech. Officer:</i> LARC/B E ANDERSON, LARC/V S CONNORS            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>	<p><b>NAG 1 2301 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7249</b>            CHEMICAL MODIFICATION OF NANOTUBES FOR COMPOSITES            06/08/2000 - 05/31/2003 FY00: \$50,336 Total: \$50,336  <i>Prin. Invest.:</i> E T SAMULSKI  <i>Tech. Officer:</i> LARC/T L ST. CLAIR            CASE Category: 12 - CHEMISTRY</p>
<p><b>NGT 1 52196 NORTH CAROLINA STATE UNIV. - RALEIGH 7242</b>            GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)            05/22/1998 - 06/30/2001 FY00: \$22,000 Total: \$54,001  <i>Prin. Invest.:</i> M L JOYNER, H T BANKS  <i>Tech. Officer:</i> LARC/W P WINFREE, LARC/R A WINCHESKI            CASE Category: 21 - MATHEMATICS</p>	<p><b>NAG 2 1188 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7250</b>            BONE MATRIX CHANGES DURING SKELETAL UNLOADING &amp; RE LOADING            03/18/1998 - 04/30/2001 FY00: \$276,370 Total: \$509,761  <i>Prin. Invest.:</i> M YAMAUCHI, W J GRZESKI  <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY            CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p><b>NGT 1 52242 NORTH CAROLINA STATE UNIV. - RALEIGH 7243</b>            GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)            06/22/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  <i>Prin. Invest.:</i> G P  <i>Tech. Officer:</i> LARC/W P WINFREE            CASE Category: 21 - MATHEMATICS</p>	<p><b>NAG 5 3100 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7251</b>            RADIATIVE PHYSICS OF THE SOFT GAMMA REPEATERS            10/11/1995 - 01/14/2001 FY00: \$0 Total: \$99,000  <i>Prin. Invest.:</i> C EVANS  <i>Tech. Officer:</i> GSFC/R OLIVERSEN            CASE Category: 22 - COMPUTER SCIENCE</p>

**NAG 5 3946 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7252**  
 PHYSICAL & OPTICAL PROPERTIES OF LABORATORY GENERAL APPLICATIONS TO STRATOSPHERIC CHEMISTRY  
 02/21/1997 - 12/31/1999 FY00: \$0 Total: \$284,898  
 Prin. Invest.: R E MILLER  
 Tech. Officer: GSFC/P A DECOLA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6278 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7253**  
 GREENHOUSE GAS (N<sub>2</sub>O, CH<sub>4</sub>) EXCHANGE AND N CYCLING D FERTILIZED (FACE) TEMPERATE FOREST  
 09/12/1997 - 08/31/2001 FY00: \$60,416 Total: \$228,588  
 Prin. Invest.: S C WHALEN  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6583 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7254**  
 IMPROVED AREA ESTIMATES FOR LAND COVER AND LAND-COVER CHANGE FROM LOW SPATIAL RESOLUTION REMOTE S  
 10/31/1997 - 09/30/1999 FY00: \$0 Total: \$195,421  
 Prin. Invest.: A MOODY  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8924 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7255**  
 LABORATORY STUDIES OF THE OPTICAL CONSTANTS & MICROPHYSICAL PROPERTIES OF STRATOSPHERIC & UPPER TR  
 01/06/2000 - 12/31/2000 FY00: \$113,536 Total: \$113,536  
 Prin. Invest.: R E MILLER  
 Tech. Officer: GSFC/P DECOLA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1580 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7256**  
 QUANTITATIVE, MULTIVARIATE METHOD/PRE-FLIGHT OPTIMIZATION, & POST-FLIGHT EVALUATION OF MACROCRYSTAL GROWTH.  
 02/04/1999 - 11/30/2002 FY00: \$179,988 Total: \$324,977  
 Prin. Invest.: C W CARTER, JR.  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5288 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7257**  
 CARBON NANOTUBE-POLYMER COMPOSITES: FABRICATION & PROPERTIES  
 08/13/1998 - 07/31/2000 FY00: \$0 Total: \$30,000  
 Prin. Invest.: O ZHOU  
 Tech. Officer: ARC/R L JAFFE, ARC/M MEYYAPPAN  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 2 5291 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7258**  
 CARBON NANOTUBE BASED QUANTUM DEVICES  
 08/20/1998 - 09/14/1999 FY00: \$0 Total: \$30,000  
 Prin. Invest.: J LU  
 Tech. Officer: ARC/R L JAFFE, ARC/M MEYYAPPAN  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 2 5372 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7259**  
 NOVEL PROPERTIES OF CARBON NANOTUBES AND RELATED NANOSTRUCTURES  
 03/23/2000 - 02/14/2001 FY00: \$90,000 Total: \$90,000  
 Prin. Invest.: J LU  
 Tech. Officer: ARC/M MEYYAPPAN  
 CASE Category: 13 - PHYSICS

**NCC 5 295 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7260**  
 AGRICULTURAL COLONIZATION ON THE ECUADORIAN AMAZON: POPULATION, BIOPHYSICAL AND GEOGRAPHICAL FACTOR  
 06/12/1998 - 12/31/2000 FY00: \$192,540 Total: \$850,862  
 Prin. Invest.: R BILSBORROW  
 Tech. Officer: GSFC/D DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 337 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7261**  
 RADON-222 AND STABLE CARBON ISOTOPE TRACING OF CARBON EXCHANGE AND TRACE GAS FLUXES IN OLD GROWTH A  
 06/17/1998 - 12/31/2000 FY00: \$193,534 Total: \$563,665  
 Prin. Invest.: C S MARTENS  
 Tech. Officer: GSFC/D W DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 2 52247 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7262**  
 SYNTHESIS & PROPERTIES OF CARBON NANOTUBES & CARBON NANOTUBE INTERCALATION COMPOUNDS  
 08/19/1998 - 08/14/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: O ZHOU  
 Tech. Officer: ARC/R L JAFFE  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT 2 52254 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7263**  
 CMOS SMART SENSORS FOR TRACKING IN NATURAL ENVIRONMENTS  
 07/19/1999 - 07/14/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: G BISHOP  
 Tech. Officer: ARC/H THOMAS, ARC/S LAU  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 30177 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7264**  
 THE MIGRATION ORIGINS OF DEFORESTATION IN A PROTECTED AREA: COLONIZATION, CLEAR-CUTTING, AND CORN IN  
 08/12/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: T M WHITMORE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NGT 5 50311 UNIVERSITY OF NORTH CAROLINA - CHAPEL HILL 7265**  
 MONOLAYER-PROTECTED CLUSTERS: NEW AND UNUSUAL NANOMETER-SCALE ELECTRONICS MATERIALS/STUDENT W. WU  
 07/07/2000 - 09/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R W MURRAY  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NAG 5 8114 UNIVERSITY OF NORTH CAROLINA AT WILMINGTON 7266**  
 HIGH-TROPHIC LEVEL ECOSYSTEM RESPONSE TO CLIMATE CHANGE IN THE ANTARCTIC PENINSULA  
 01/25/1999 - 12/31/2000 FY00: \$15,375 Total: \$165,725  
 Prin. Invest.: S D EMSLIE  
 Tech. Officer: GSFC/J W CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1314 UNIVERSITY OF NORTH CAROLINA, CHARLOTTE 7267**  
 RESEARCH JOVE  
 01/22/1997 - 08/31/2000 FY00: \$0 Total: \$134,500  
 Prin. Invest.: R D FORSYTHE, P WANG, S E MARSHALL  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NAG 8 1514 UNIVERSITY OF NORTH CAROLINA, CHARLOTTE 7268**  
 VARIABILITY & PREDICTABILITY OF LAND-ATMOSPHERE INTERACTIONS:  
 OBSERVATIONAL AND MODELING STUDIES  
 06/02/1998 - 05/31/2001 FY00: \$51,937 Total: \$139,900  
 Prin. Invest.: S MARSHALL, NONE  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1203 WAKE FOREST UNIVERSITY 7269**  
 FUCUS AS A MODEL SYSTEM TO STUDY THE ROLE OF SUXIN TRANSPORT  
 & THE ACTIN CYTOSKELETON IN GRAVITY...  
 04/06/1998 - 04/30/2001 FY00: \$205,199 Total: \$399,796  
 Prin. Invest.: G K MUDAAY  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 3968 WAKE FOREST UNIVERSITY 7270**  
 DIETARY OXALATE AND STONE RISK  
 03/11/1997 - 02/28/1999 FY00: \$0 Total: \$171,161  
 Prin. Invest.: R P HOLMES  
 Tech. Officer: GSFC/V SCHNEIDER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 3 2011 WINSTON-SALEM STATE UNIVERSITY 7271**  
 PARALLEL OBJECT-ORIENTED PROGRAMMING IN NETWORK ENVIRON-  
 MENT  
 02/21/1997 - 10/27/2000 FY00: \$49,427 Total: \$143,988  
 Prin. Invest.: A RADENSKI  
 Tech. Officer: GRC/G FOLLEN  
 CASE Category: 22 - COMPUTER SCIENCE

## NORTH DAKOTA

**NAG 4 209 NORTH DAKOTA STATE UNIVERSITY 7272**  
 ADAPTIVE MULTISCALE ALGORITHMS FOR NON-LINEAR ESTIMATION OF  
 AEROSPACE SYSTEMS  
 05/31/2000 - 09/30/2000 FY00: \$13,028 Total: \$13,028  
 Prin. Invest.: Y XU  
 Tech. Officer: DFRG/M J BRENNER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1007 NORTH DAKOTA STATE UNIVERSITY 7273**  
 JOVE  
 11/19/1993 - 09/30/1998 FY00: -\$4,722 Total: \$148,045  
 Prin. Invest.: P HAMMOND, D KURTZE, A UNGAR  
 Tech. Officer: MSFC/F SIX  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT 1 52159 NORTH DAKOTA STATE UNIVERSITY 7274**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/27/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: M SOUCEK, C R WOLD  
 Tech. Officer: LARC/R PATER  
 CASE Category: 11 - ASTRONOMY

**NGT 4 52411 NORTH DAKOTA STATE UNIVERSITY 7275**  
 ADAPTIVE MULTISCALE ALGORITHMS  
 05/11/1999 - 07/31/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: Y XU, W K PERRIZO  
 Tech. Officer: DFRG/K GUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 4 52424 NORTH DAKOTA STATE UNIVERSITY 7276**  
 GRAD STU RES PRO (GSRP)-PROP TITLE : ADAPTIVE MULTISCALE ALGO-  
 RITHMS FOR NONLINEAR EST OF AEROSPACE  
 09/26/2000 - 09/25/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: Y XU Prin. Invest.: NONE  
 Tech. Officer: DFRG/K K GUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 6088 TURTLE MOUNTAIN COMMUNITY COLLEGE 7277**  
 RECRUITMENT AND RETENTION OF INDIANS IN SCIENCE AND  
 08/11/1997 - 11/30/1999 FY00: -\$2,596 Total: \$48,844  
 Prin. Invest.: S KARNAWAT  
 Tech. Officer: GSFC/P SAKIMOTO  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 1911 UNIVERSITY OF NORTH DAKOTA 7278**  
 AMERICAN INDIANS INTO COMPUTER SCIENCE & ENGINEERING  
 PROGRAM (AICSE)  
 07/08/1998 - 05/31/2000 FY00: \$0 Total: \$58,768  
 Prin. Invest.: M S ALI, A ALLERY  
 Tech. Officer: GRC/D R PLUMER, GRC/S A MERRITT  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 3 2094 UNIVERSITY OF NORTH DAKOTA 7279**  
 ANALYSIS AND MODELING OF TRANSIENT THERMOHYDRAULICS OF  
 CRYOGENIC TRANSFER LINES  
 12/12/1997 - 11/30/1998 FY00: -\$6,372 Total: \$26,975  
 Prin. Invest.: A R HASAN  
 Tech. Officer: GRC/M M HASAN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 5 2696 UNIVERSITY OF NORTH DAKOTA 7280**  
 BRINGING VOLCANO REMOTE SENSING DATA TO CLASSROOMS NATIONAL  
 PARKS AND MONUMENTS  
 08/17/1994 - 09/30/2000 FY00: \$0 Total: \$855,487  
 Prin. Invest.: C A WOOD  
 Tech. Officer: GSFC/F HASLER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3488 UNIVERSITY OF NORTH DAKOTA 7281**  
 ARE THE UNIDENTIFIED EXTENDED SOURCES WITH NO GALAXY TYPE  
 CLUSTER FIELDS MERGER REMNANTS?  
 10/31/1996 - 10/31/1999 FY00: -\$2,091 Total: \$34,480  
 Prin. Invest.: M J HENRIKSEN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3616 UNIVERSITY OF NORTH DAKOTA 7282**  
 A PUBLIC ACCESS RESOURCE CENTER (PARC) EMPOWERING TO USE  
 EOSDI-IMPLEMENTATION PHASE  
 11/22/1998 - 06/30/2001 FY00: \$1,000,000 Total: \$3,817,000  
 Prin. Invest.: G A SEIELSTAD  
 Tech. Officer: GSFC/A J TUYAHOV  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7950 UNIVERSITY OF NORTH DAKOTA 7283**  
 CO2 BUDGET AND RECTIFICATION AIRBORNE STUDY--NORTH AMERICA  
 (COBRA--NA)  
 12/21/1998 - 12/14/2000 FY00: \$165,000 Total: \$180,250  
 Prin. Invest.: C A GRAINGER  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER



## NASA'S UNIVERSITY PROGRAM

**NAG 5 8681 UNIVERSITY OF NORTH DAKOTA 7284**  
 BEYOND THE CUTTING EDGE: INNOVATIVE INTERNET EDUCATION TECHNIQUES  
 07/23/1999 - 09/30/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: C WOOD  
 Tech. Officer: GSFC/N LAL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9656 UNIVERSITY OF NORTH DAKOTA 7285**  
 MICROPHYSICAL CHARACTERISTICS OF CLOUDS DURING THE TRMM FIELD CAMPAIGNS  
 06/05/2000 - 05/31/2001 FY00: \$59,299 Total: \$59,299  
 Prin. Invest.: C A GRAINGER  
 Tech. Officer: HQ/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG10 283 UNIVERSITY OF NORTH DAKOTA 7286**  
 CLOUD ELECTRIC FIELDS AND MICROPHYSICS STUDIES CLOUD ELECTRIC FIELDS AND MICROPHYSICS STUDIES  
 05/23/2000 - 06/03/2001 FY00: \$392,000 Total: \$392,000  
 Prin. Invest.: D GRAINGER  
 Tech. Officer: KSC/F J MERCERET  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG13 99006 UNIVERSITY OF NORTH DAKOTA 7287**  
 NORTHERN GREAT PLAINS REGIONAL EARTH SCIENCE APPLICATIONS CENTER  
 03/01/1999 - 02/28/2002 FY00: \$0 Total: \$1,720,000  
 Prin. Invest.: P R ZIMMERMAN  
 Tech. Officer: SSC/C HILL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 193 UNIVERSITY OF NORTH DAKOTA 7288**  
 A MULTI-USE AIRBORNE RESEARCH FACILITY  
 05/15/1997 - 04/30/2000 FY00: \$62,000 Total: \$1,360,032  
 Prin. Invest.: M POELLOT  
 Tech. Officer: GSFC/C YUHAS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 310 UNIVERSITY OF NORTH DAKOTA 7289**  
 A PUBLIC ACCESS RESOURCE CTR(PARC)EMPOWERING THE GENERAL PUBLIC TO USE EOSDIS(PHASE III-OPERATIONS)  
 04/11/1998 - 02/28/2001 FY00: \$500,000 Total: \$1,628,000  
 Prin. Invest.: G SEIELSTAD  
 Tech. Officer: GSFC/A TUYAHOV  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 399 UNIVERSITY OF NORTH DAKOTA 7290**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/14/1999 - 04/30/2001 FY00: \$225,000 Total: \$450,000  
 Prin. Invest.: C WOOD  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 503 UNIVERSITY OF NORTH DAKOTA 7291**  
 A MULTI-USE AIRBORNE RESEARCH FACILITY  
 06/20/2000 - 06/30/2001 FY00: \$93,257 Total: \$93,257  
 Prin. Invest.: M POELLET  
 Tech. Officer: GSFC/C YUHAS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40034 UNIVERSITY OF NORTH DAKOTA 7292**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM.  
 02/13/1997 - 02/28/2001 FY00: \$248,562 Total: \$931,062  
 Prin. Invest.: C A WOOD  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## OHIO

**NAG 3 2443 BOWLING GREEN STATE UNIVERSITY 7293**  
 PROPOSED TRIAL OF FRESHLY COLLECTED LANDSAT 7 TM DATA FOR REMOTE SENSING APPLICATIONS IN NORTHWEST  
 05/31/2000 - 05/18/2001 FY00: \$105,000 Total: \$105,000  
 Prin. Invest.: D K VINCENT  
 Tech. Officer: GRC/T M SCOTT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 9 1186 BOWLING GREEN STATE UNIVERSITY 7294**  
 PATHOGEN REDUCTION ON LETTUCE AND RADISHES USING HYDROGEN PEROXIDE  
 01/10/2000 - 01/09/2001 FY00: \$18,412 Total: \$18,412  
 Prin. Invest.: D L HENTGES  
 Tech. Officer: JSC/V L KLOERIS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 3 99202 BOWLING GREEN STATE UNIVERSITY 7295**  
 PURCHASE OF DYNAMIC ELECTRIC MOTOR LOAD SIMULATOR  
 09/24/1999 - 12/31/2000 FY00: \$225,986 Total: \$359,986  
 Prin. Invest.: S BALLARD  
 Tech. Officer: GRC/J L DOLCE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1333 CASE WESTERN RESERVE UNIVERSITY 7296**  
 DISCRETE FILEDS FOR AIR TRAFFIC MANAGEMENT  
 07/01/1999 - 12/31/1999 FY00: \$34,333 Total: \$52,277  
 Prin. Invest.: M S BRANICKY  
 Tech. Officer: ARC/G MEYER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 2 1356 CASE WESTERN RESERVE UNIVERSITY 7297**  
 EFFECTS OF MICROGRAVITY ON ZEBRAFISH VESTIBULAR DEVELOPMENT  
 07/23/1999 - 12/31/2000 FY00: \$124,316 Total: \$182,216  
 Prin. Invest.: S J MOORMAN, NONE  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1868 CASE WESTERN RESERVE UNIVERSITY 7298**  
 INDUSTRIAL PROCESSES INFLUENCED BY GRAVITY  
 05/09/1998 - 04/08/2001 FY00: \$33,298 Total: \$396,073  
 Prin. Invest.: S OSTRACH, Y KAMOTANI  
 Tech. Officer: GRC/A D PLINE, GRC/N R HALL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 1913 CASE WESTERN RESERVE UNIVERSITY 7299**  
 BUBBLE GENERATION IN A FLOWING LIQUID MEDIUM & RES ULTING TWO-  
 PHASE FLOW IN MICROGRAVITY  
 07/10/1996 - 09/30/2000 FY00: \$90,989 Total: \$383,974  
 Prin. Invest.: Y KAMOTANI, J OSTRACH, J KADAMBI  
 Tech. Officer: GRC/D F CHAO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2110 CASE WESTERN RESERVE UNIVERSITY 7300**  
 NOVEL PIV TECHNIQUE FOR PLANAR PARTICLE SIZE AND V OLOCITY  
 MEASUREMENTS FOR SPRAY DIAGNOSTICS  
 01/08/1998 - 10/31/2000 FY00: \$74,959 Total: \$224,947  
 Prin. Invest.: J R KADAMBI  
 Tech. Officer: GRC/M P WERNET  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2131 CASE WESTERN RESERVE UNIVERSITY 7301**  
 EVALUATION OF SUB-SURFACE DAMAGE IN SURFACE PREPAR ATION OF  
 SIC WAFERS  
 02/25/1998 - 11/08/2000 FY00: \$30,000 Total: \$110,000  
 Prin. Invest.: P PIROUZ  
 Tech. Officer: GRC/J A POWELL  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2160 CASE WESTERN RESERVE UNIVERSITY 7302**  
 STABILITY LIMITS AND DYNAMICS OF NONAXISYMMETRIC L IQUID  
 BRIDGES  
 04/24/1998 - 05/31/2001 FY00: \$136,955 Total: \$335,877  
 Prin. Invest.: I D ALEXANDER  
 Tech. Officer: GRC/J C DUH, GRC/B S SINGH  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2204 CASE WESTERN RESERVE UNIVERSITY 7303**  
 ESTABLISH THE GLENNAN MICROSYSTEM INITIATIVE ESTABLISH THE  
 GLENNAN MICROSYSTEM INITIATIVE  
 09/25/1998 - 01/01/2001 FY00: \$508,000 Total: \$2,258,000  
 Prin. Invest.: M MEHREGANY  
 Tech. Officer: GRC/L G MATUS  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2210 CASE WESTERN RESERVE UNIVERSITY 7304**  
 THE FEASIBILITY OF APPLYING TOMOGRAPHIC TECHNIQUES IN THE ICING  
 RESEARCH WIND TUNNEL  
 11/19/1998 - 02/28/2001 FY00: \$30,636 Total: \$104,530  
 Prin. Invest.: S H IZEN  
 Tech. Officer: GRC/C R MERCER  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 3 2238 CASE WESTERN RESERVE UNIVERSITY 7305**  
 IDENTIFICATION OF GRAVITY-RELATED EFFECTS ON CRYST AL GROWTH  
 FROM MELTS WITH AN IMISCIBILITY GAP  
 02/24/1998 - 08/04/2000 FY00: \$0 Total: \$70,067  
 Prin. Invest.: A SAYIR  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2239 CASE WESTERN RESERVE UNIVERSITY 7306**  
 CANDLE FLAMES IN MICROGRAVITY CANDLE FLAMES IN MICROGRAVITY  
 02/24/1999 - 05/02/2000 FY00: \$14,125 Total: \$56,500  
 Prin. Invest.: I ADAMOVIH  
 Tech. Officer: GRC/S J SCHNEIDER  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2243 CASE WESTERN RESERVE UNIVERSITY 7307**  
 ADVANCEMENT OR TRANSDUCER SENSOR SYSTEM FOR CRACK  
 CONTAMINATION DETECTION  
 03/12/1999 - 01/11/2001 FY00: \$60,000 Total: \$100,000  
 Prin. Invest.: D HAZONY  
 Tech. Officer: GRC/D NG  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2286 CASE WESTERN RESERVE UNIVERSITY 7308**  
 MODELING OF ICE FORMATION ON SWEPT WING LEADING ED GES  
 08/20/1999 - 02/03/2000 FY00: \$0 Total: \$17,186  
 Prin. Invest.: E RESHOTKO  
 Tech. Officer: GRC/M POTAPCZUK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2315 CASE WESTERN RESERVE UNIVERSITY 7309**  
 MODELING OF BALLISTIC IMPACT BEHAVIOR OF INCONEL 7 18 ALLOYS  
 WITH APPLICATIONS TO ENGINE BLADE CONTA  
 12/30/1999 - 12/15/2000 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: V PRAKASH  
 Tech. Officer: GRC/J PEREIRA  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2331 CASE WESTERN RESERVE UNIVERSITY 7310**  
 CANDLE FLAMES IN MICROGRAVITY CANDLE FLAMES IN MICROGRAVITY  
 02/10/2000 - 02/08/2001 FY00: \$42,323 Total: \$42,323  
 Prin. Invest.: J S T'EN  
 Tech. Officer: GRC/D L KIETRICH  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2391 CASE WESTERN RESERVE UNIVERSITY 7311**  
 SATELLITE AND TERRESTRIAL NETWORK ANALYSIS SATELLITE AND  
 TERRESTRIAL NETWORK ANALYSIS  
 04/13/2000 - 05/31/2001 FY00: \$27,646 Total: \$27,646  
 Prin. Invest.: J ISHAC  
 Tech. Officer: GRC/W HVANCIC  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6715 CASE WESTERN RESERVE UNIVERSITY 7312**  
 AN ELECTRON MICROSCOPY SURVEY OF CARBONATE-BEARING  
 REGIONS OF ALH84001  
 12/10/1997 - 11/30/2000 FY00: \$0 Total: \$120,000  
 Prin. Invest.: R HARVEY  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7019 CASE WESTERN RESERVE UNIVERSITY 7313**  
 THE EVOLUTION OF GALAXIES HARBORING CENTRAL MASSIV E BLACK  
 HOLES - ATP  
 02/19/1998 - 02/14/2001 FY00: \$104,562 Total: \$260,505  
 Prin. Invest.: C MIHOS  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

## NASA'S UNIVERSITY PROGRAM

**NAG 8 1270 CASE WESTERN RESERVE UNIVERSITY 7314**  
 DETERMINATION OF THE SURFACE ENERGY OF LIQUID CRYSTALS  
 05/03/1996 - 05/31/2001 FY00: \$34,999 Total: \$280,000  
 Prin. Invest.: C ROSENBLATT, P L TAYLOR  
 Tech. Officer: MSFC/C R TALLEY  
 CASE Category: 13 - PHYSICS

**NAG 8 1727 CASE WESTERN RESERVE UNIVERSITY 7315**  
 PROPOSAL "VIBRATION AND G-JITTER: TRANSPORT DISTURBANCES DUE TO RESIDUAL ACCELERATION/LOW GRAVITY."  
 06/19/2000 - 11/30/2003 FY00: \$44,837 Total: \$44,837  
 Prin. Invest.: J I ALEXANDER  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NCA 3 201 CASE WESTERN RESERVE UNIVERSITY 7316**  
 GLENNAN MICROSYSTEMS INITIATIVE FY00 PROJECTS GLENNAN MICROSYSTEMS INITIATIVE FY00PROJECTS  
 05/12/2000 - 11/30/2000 FY00: \$1,238,470 Total: \$1,238,470  
 Prin. Invest.: M MEHREGANY, C LIU  
 Tech. Officer: GRC/L G MATUS  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 2 1204 CASE WESTERN RESERVE UNIVERSITY 7317**  
 EFFECTS OF MICROGRAVITY DURING THE CRITICAL PERIOD OF ZEBRAFISH VESTIBULAR DEVELOPMENT  
 09/29/2000 - 02/28/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: S J MOORMAN  
 Tech. Officer: ARC/D REISS-BUBENHEIM, ARC/R W BERTHOLD  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 3 372 CASE WESTERN RESERVE UNIVERSITY 7318**  
 A STUDY OF THE MECHANICAL PROPERTIES OF DIRECTIONALLY SOLIDIFIED & CHARACTERIZATION OF HIGH TEMP MA  
 11/15/1994 - 10/31/2000 FY00: \$181,167 Total: \$1,322,773  
 Prin. Invest.: A SAYIR  
 Tech. Officer: GRC/J A DICARLO, GRC/S R LEVINE  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 384 CASE WESTERN RESERVE UNIVERSITY 7319**  
 EVALUATION OF THE LONG TERM DURABILITY OF MATERIALS FOR ADVANCED TURBINES ENGINES  
 03/24/1995 - 03/09/2000 FY00: \$63,858 Total: \$545,017  
 Prin. Invest.: G M MICHAL  
 Tech. Officer: GRC/R V MINER, GRC/M V NATHAL  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 389 CASE WESTERN RESERVE UNIVERSITY 7320**  
 PROCESSING, STRUCTURES AND PROPERTIES OF ADVANCED INTERMETALLICS AND METAL MATRIX COMPOSITES  
 01/10/1995 - 01/20/2000 FY00: \$0 Total: \$853,713  
 Prin. Invest.: G M MICHAL, I E LOCCI  
 Tech. Officer: GRC/M V NATHAL  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 404 CASE WESTERN RESERVE UNIVERSITY 7321**  
 CERAMIC PROCESSING  
 03/13/1995 - 11/29/1999 FY00: \$0 Total: \$1,350,551  
 Prin. Invest.: J CAWLEY  
 Tech. Officer: GRC/S LEVINE  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 463 CASE WESTERN RESERVE UNIVERSITY 7322**  
 MONOLITHIC CU-CR-NB ALLOYS FOR ELEVATED TEMPERATURE HIGH HEAT FLUX APPLICATIONS  
 04/10/1996 - 01/18/2001 FY00: \$100,697 Total: \$367,032  
 Prin. Invest.: G M MICHAL, D L ELLIS  
 Tech. Officer: GRC/R V MINER, GRC/M V NATHAL  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 484 CASE WESTERN RESERVE UNIVERSITY 7323**  
 THE ROLE OF FIBER-ARCHITECTURE ON THE MECHANICAL PROPERTIES OF TITANIUM MATRIX COMPOSITES  
 04/11/1996 - 06/30/2000 FY00: \$14,000 Total: \$243,492  
 Prin. Invest.: R M AIKEN, JR.  
 Tech. Officer: GRC/S M ARNOLD  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 3 562 CASE WESTERN RESERVE UNIVERSITY 7324**  
 IGNITION AND FLAME SPREAD OF LIQUID FUEL POOLS  
 06/17/1997 - 08/10/2000 FY00: -\$36,244 Total: \$78,212  
 Prin. Invest.: J S TIEN  
 Tech. Officer: GRC/J A SALZMAN  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 587 CASE WESTERN RESERVE UNIVERSITY 7325**  
 TIME DEPENDENT NUMERICAL SIMULATIONS OF SOLIDIFICATION PROCESSES  
 01/01/1998 - 12/31/2000 FY00: \$92,192 Total: \$269,117  
 Prin. Invest.: P L TAYLOR  
 Tech. Officer: GRC/A CHIT  
 CASE Category: 13 - PHYSICS

**NCC 3 625 CASE WESTERN RESERVE UNIVERSITY 7326**  
 DEVELOPMENT OF NOVEL CLASS OF RETAINERLESS/UNIDIRECTIONAL FIBER COMPOSITE MOMENTUM WHEELS  
 06/17/1998 - 01/20/2000 FY00: \$8,772 Total: \$149,936  
 Prin. Invest.: J M PRAHL  
 Tech. Officer: GRC/C DELLACORTE  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 633 CASE WESTERN RESERVE UNIVERSITY 7327**  
 COMBUSTION OF SOLID FUEL IN VERY LOW SPEED OXYGEN STREAMS  
 06/30/1998 - 09/02/2003 FY00: \$24,902 Total: \$333,612  
 Prin. Invest.: J S TIEN  
 Tech. Officer: GRC/K SACKSTEDER  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 653 CASE WESTERN RESERVE UNIVERSITY 7328**  
 A STUDY OF THE TIME-DEPENDENT RESPONSE OF CERAMIC MATERIALS  
 11/23/1998 - 11/11/2000 FY00: \$99,901 Total: \$198,642  
 Prin. Invest.: D A GASPARINI  
 Tech. Officer: GRC/N N NEMETH  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 658 CASE WESTERN RESERVE UNIVERSITY 7329**  
 LOW STRETCH DIFFUSION FLAMES LOW STRETCH DIFFUSION FLAMES  
 01/12/1999 - 12/08/2002 FY00: \$63,038 Total: \$111,829  
 Prin. Invest.: J S TIEN  
 Tech. Officer: GRC/S L OLSON  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 669 CASE WESTERN RESERVE UNIVERSITY 7330**  
 FLAME SPREADING IN PARTIAL GRAVITY FLAME SPREADING IN PARTIAL GRAVITY  
 02/03/1999 - 01/03/2003 FY00: \$46,774 Total: \$68,439  
 Prin. Invest.: J S TIEN  
 Tech. Officer: GRC/K R SACKSTEDER  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 679 CASE WESTERN RESERVE UNIVERSITY 7331**  
 DEVELOPMENT OF ADVANCED SENSORS FOR BANTAM VEHICLE APPLICATIONS  
 02/24/1999 - 11/30/2000 FY00: \$80,000 Total: \$150,000  
 Prin. Invest.: C LIU  
 Tech. Officer: GRC/G W HUNTER  
 CASE Category: 43 - CHEMICAL ENGR

**NCC 3 681 CASE WESTERN RESERVE UNIVERSITY 7332**  
 THERMO-PHYSICAL PROPERTIES OF MOLTEN SEMICONDUCTOR S  
 02/12/1999 - 02/17/2002 FY00: \$2,500 Total: \$5,000  
 Prin. Invest.: D H MATTHIESEN  
 Tech. Officer: GRC/A CHAIT  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 701 CASE WESTERN RESERVE UNIVERSITY 7333**  
 DENTRITIC GROWTH AND COARSENING PHENOMENA IN SOLID IFICATION  
 04/20/1999 - 05/31/2002 FY00: \$115,883 Total: \$190,883  
 Prin. Invest.: P L TAYLOR  
 Tech. Officer: GRC/A CHAIT  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 706 CASE WESTERN RESERVE UNIVERSITY 7334**  
 DEVELOPMENT OF SOLID STATE CO AND CO2 SENSORS FOR FIRE PROTECTION APPLICATIONS  
 05/04/1999 - 09/22/1999 FY00: \$0 Total: \$40,000  
 Prin. Invest.: C C LIU  
 Tech. Officer: GRC/G W HUNTER  
 CASE Category: 43 - CHEMICAL ENGR

**NCC 3 714 CASE WESTERN RESERVE UNIVERSITY 7335**  
 RAPID MANUFACTURING MONOLITHIC SILICON NITRIDE THR UST CELLS  
 07/12/1999 - 10/31/2000 FY00: \$199,575 Total: \$244,091  
 Prin. Invest.: J D CRAWLEY, NONE  
 Tech. Officer: GRC/J LANG  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 743 CASE WESTERN RESERVE UNIVERSITY 7336**  
 DEVELOPMENT OF ADVANCED OIL-FREE TURBOMACHINERY DEVELOPMENT OF ADVANCED OIL-FREE TURBOMACHINERY  
 11/23/1999 - 06/30/2000 FY00: \$51,985 Total: \$51,985  
 Prin. Invest.: J M PRAHL  
 Tech. Officer: GRC/C DELLACORTE  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 766 CASE WESTERN RESERVE UNIVERSITY 7337**  
 LONG TERM DURABILITY OF MATERIALS FOR AEROSPACE AP Plications  
 01/24/2000 - 11/30/2000 FY00: \$96,132 Total: \$96,132  
 Prin. Invest.: I E LOCCI  
 Tech. Officer: GRC/M V NATHAL  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 772 CASE WESTERN RESERVE UNIVERSITY 7338**  
 THE DEVELOPMENT OF SOLID STATE CO AND CO2 SENSOR F OR FIRE PROTECTION APPLICATIONS  
 02/11/2000 - 09/30/2000 FY00: \$95,000 Total: \$95,000  
 Prin. Invest.: C C LIU  
 Tech. Officer: GRC/G W HUNTER  
 CASE Category: 43 - CHEMICAL ENGR

**NCC 3 823 CASE WESTERN RESERVE UNIVERSITY 7339**  
 GAS EVOLUTION EFFECT ON MASS TRANSFER IN ROTATING ELECTRO-CHEMICAL CELLS UNDER MICROGRAVITY CONDITION  
 08/17/2000 - 11/30/2003 FY00: \$49,925 Total: \$49,925  
 Prin. Invest.: Y KAMOTANI  
 Tech. Officer: GRC/D GREEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 8 152 CASE WESTERN RESERVE UNIVERSITY 7340**  
 DIFFUSION PROCESSES IN MOLTEN SEMICONDUCTORS  
 06/12/1998 - 03/31/2002 FY00: \$624,887 Total: \$1,569,997  
 Prin. Invest.: D H MATTHIESEN  
 Tech. Officer: MSFC/J BRUNSON  
 CASE Category: 13 - PHYSICS

**NGT 3 52323 CASE WESTERN RESERVE UNIVERSITY 7341**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 09/04/1996 - 12/31/1998 FY00: \$0 Total: \$29,808  
 Prin. Invest.: I GREBER  
 Tech. Officer: GRC/F MONTEGANI  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 3 52328 CASE WESTERN RESERVE UNIVERSITY 7342**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/10/1997 - 05/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: K LOPARO  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 3 52350 CASE WESTERN RESERVE UNIVERSITY 7343**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM  
 06/23/1999 - 06/30/2000 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: J S TIEN  
 Tech. Officer: GRC/J J MONTEGANI  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT 3 52352 CASE WESTERN RESERVE UNIVERSITY 7344**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM  
 06/24/1999 - 08/31/2000 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: J R KADAMBI  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 4 52420 CASE WESTERN RESERVE UNIVERSITY 7345**  
 A MANTIS ROBOT FOR AGILE OPERATION IN EXTREME ENVI RONMENTS  
 05/11/2000 - 08/11/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: R D QUINN  
 Tech. Officer: DFRG/K K GUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

## NASA'S UNIVERSITY PROGRAM

**NAG 5 50274 CASE WESTERN RESERVE UNIVERSITY 7346**  
 A MANTIS-LIKE ROBOT FOR AGILE OPERATION IN EXTREME ENVIRON-  
 MENTS/STUDENT: DANIEL KINGSLEY  
 06/15/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R QUINN  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 1922 CLEVELAND STATE UNIVERSITY 7347**  
 TWO-PHASE ANNUAL FLOW IN HELICAL COIL FLOW CHANNEL S IN A  
 REDUCED GRAVITY ENVIRONMENT  
 07/23/1996 - 12/16/2000 FY00: \$0 Total: \$280,000  
 Prin. Invest.: E G KESHOCK, C S LIN  
 Tech. Officer: GRC/B J MOTIL  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2029 CLEVELAND STATE UNIVERSITY 7348**  
 DEVELOPMENT OF AN OPTIMIZED MULTIDISCIPLINARY SYSTEM DESIGN  
 TOOL USING TAGUCHI TECHNIQUES & NEURAL  
 04/01/1997 - 01/31/2000 FY00: \$0 Total: \$102,000  
 Prin. Invest.: P P LIN  
 Tech. Officer: GRC/K JULES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2040 CLEVELAND STATE UNIVERSITY 7349**  
 FPGA BASED RECONFIGURABLE PACKET SWITCH TEST BED  
 04/29/1997 - 07/31/2001 FY00: \$0 Total: \$129,907  
 Prin. Invest.: P P CHU  
 Tech. Officer: GRC/R E JONES  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2075 CLEVELAND STATE UNIVERSITY 7350**  
 MINORITY ENGINEERING PROGRAM PIPELINE  
 09/17/1997 - 08/31/2001 FY00: \$30,984 Total: \$66,654  
 Prin. Invest.: P CHARITY  
 Tech. Officer: GRC/M L BOROWSKI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2144 CLEVELAND STATE UNIVERSITY 7351**  
 DEVELOPMENT OF ADVANCED SPACE SOLAR CELLS DEVELOPMENT OF  
 ADVANCED SPACE SOLAR CELLS  
 04/21/1998 - 09/17/1999 FY00: \$0 Total: \$100,000  
 Prin. Invest.: M FAUR  
 Tech. Officer: GRC/S G BAILEY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2232 CLEVELAND STATE UNIVERSITY 7352**  
 MAPPING THE POSITION DEPENDENCE OF THE LIQUID WATER CONTENT  
 02/18/1999 - 12/31/2000 FY00: \$7,000 Total: \$14,000  
 Prin. Invest.: J LOCK  
 Tech. Officer: GRC/C R MERCER  
 CASE Category: 13 - PHYSICS

**NAG 3 2273 CLEVELAND STATE UNIVERSITY 7353**  
 THE ECONOMIC IMPACT OF GLENN RESEARCH CENTER THE ECONOMIC  
 IMPACT OF GLENN RESEARCH CENTER  
 06/23/1999 - 11/30/2000 FY00: \$0 Total: \$57,772  
 Prin. Invest.: Z AUSTRIAN  
 Tech. Officer: GRC/R C ALEXANDER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2276 CLEVELAND STATE UNIVERSITY 7354**  
 ENHANCED SPATIAL RESOLUTION OF ULTRASONIC AND THERMAL WAVE  
 IMAGING  
 07/14/1999 - 11/03/1999 FY00: \$0 Total: \$26,000  
 Prin. Invest.: T NAYFEH  
 Tech. Officer: GRC/D ROTH  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2296 CLEVELAND STATE UNIVERSITY 7355**  
 REAL TIME MONITORING SYSTEM  
 09/30/1999 - 05/06/2001 FY00: \$0 Total: \$29,016  
 Prin. Invest.: D M KOCHER  
 Tech. Officer: GRC/D WHITE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2306 CLEVELAND STATE UNIVERSITY 7356**  
 STRUCTURAL MODELING OF ENGINE COMPONENTS AND MATERIAL  
 PROCESSES  
 12/01/1999 - 11/22/2000 FY00: \$111,880 Total: \$111,880  
 Prin. Invest.: J HEMANN  
 Tech. Officer: GRC/H KAUTZ  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2326 CLEVELAND STATE UNIVERSITY 7357**  
 DEVELOPMENT OF A FAST ANALYSIS TOOL FOR THE INTERNATIONAL  
 SPACE STATION (ISS) USING SOFTWARE COMPUTING  
 02/04/2000 - 01/31/2001 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: P P LIN  
 Tech. Officer: GRC/K JULES  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2423 CLEVELAND STATE UNIVERSITY 7358**  
 OPTICAL SCATTERING CHARACTERIZATION FOR THE GLENN MICRO-  
 SYSTEMS MICROSCALE PARTICULATE CLASSIFIER  
 05/12/2000 - 04/16/2001 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: J A LOCK  
 Tech. Officer: GRC/P S GREENSBERG  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2482 CLEVELAND STATE UNIVERSITY 7359**  
 DEVELOPMENT OF A MULTI-DIMENSIONAL STIRLING ENGINE CODE FOR  
 THERMODYNAMICS PERFORMANCE  
 08/02/2000 - 07/31/2002 FY00: \$55,000 Total: \$55,000  
 Prin. Invest.: D IBRAHIM  
 Tech. Officer: GRC/L THIEMENE  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 8 1584 CLEVELAND STATE UNIVERSITY 7360**  
 R/S ACOUSTICALLY ASSISTED BIOREACTOR FOR TERRESTRIAL AND  
 MICROGRAVITY APPLICATIONS.  
 01/14/1999 - 11/30/2002 FY00: \$179,000 Total: \$315,000  
 Prin. Invest.: J M BELOVICH  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 61 - PSYCHOLOGY BIOLOGY

**NCC 3 376 CLEVELAND STATE UNIVERSITY 7361**  
 AMINE AND SILIAZANE CROSSLINKING AGENTS FOR PRECERAMIC POLYMERS  
 12/15/1994 - 12/10/1999 FY00: \$0 Total: \$606,817  
 Prin. Invest.: J MASNOVI  
 Tech. Officer: GRC/F I HURWITZ  
 CASE Category: 12 - CHEMISTRY

**NCC 3 393 CLEVELAND STATE UNIVERSITY 7362**  
 DEVELOPMENT EVALUATION AND MODELING OF ADVANCED CERAMIC FIBERS FOR HIGH TEMPERATURE COMPOSITES  
 01/23/1995 - 03/02/2000 FY00: \$0 Total: \$536,627  
 Prin. Invest.: S N TEWARI  
 Tech. Officer: GRC/R V MINER  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 428 CLEVELAND STATE UNIVERSITY 7363**  
 PROTEIN CRYSTAL GROWTH AND TRANSPORT PHENOMENA  
 08/24/1995 - 11/14/1999 FY00: \$0 Total: \$294,265  
 Prin. Invest.: S N TEWARI  
 Tech. Officer: GRC/T K GLASGOW  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 433 CLEVELAND STATE UNIVERSITY 7364**  
 ANALYSIS OF THE USE OF SELECTED MODERN INDUSTRIAL METHODS AND PROCESSES IN THE SCIENTIFIC ENVIRONMENT  
 09/24/1995 - 09/30/1998 FY00: -\$16,167 Total: \$229,000  
 Prin. Invest.: D L KRAVEVICH  
 Tech. Officer: GRC/J M MULLINS  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 444 CLEVELAND STATE UNIVERSITY 7365**  
 COATINGS FOR CERAMIC MATRIX COMPOSITES  
 01/15/1996 - 01/17/2001 FY00: \$125,747 Total: \$561,144  
 Prin. Invest.: S N TEWARI  
 Tech. Officer: GRC/L A GREENBAUER-SENG  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 445 CLEVELAND STATE UNIVERSITY 7366**  
 MODIFICATION OF ENVIRONMENTAL/THERMAL BARRIER COATINGS FOR SILICON-BASED CERAMICS  
 01/15/1996 - 01/17/2001 FY00: \$133,741 Total: \$607,229  
 Prin. Invest.: S N TEWARI  
 Tech. Officer: GRC/L A GREENBAUER-SENG  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 488 CLEVELAND STATE UNIVERSITY 7367**  
 DESIGN LIFE METH & COMP ALGOR FOR THE ANALY OF COM P FAB FROM CERAMIC BASED MATERIAL SYSTEMS  
 07/16/1996 - 12/14/2000 FY00: -\$1 Total: \$221,571  
 Prin. Invest.: S F DUFFY  
 Tech. Officer: GRC/N N NEMETH  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 499 CLEVELAND STATE UNIVERSITY 7368**  
 HIGH TEMPERATURE MECHANICAL BEHAVIOR OF CERAMIC MATRIX COMPOSITES  
 09/04/1996 - 11/29/1999 FY00: \$0 Total: \$681,708  
 Prin. Invest.: J HEMANN  
 Tech. Officer: GRC/J SALEM  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 521 CLEVELAND STATE UNIVERSITY 7369**  
 THE EFFECTS OF MULTIPLE SCATTERING IN PHOTON CORRELATION SPECTROSCOPY  
 12/26/1996 - 11/30/2000 FY00: \$77,000 Total: \$294,000  
 Prin. Invest.: J A LOCK  
 Tech. Officer: GRC/A CHAIT  
 CASE Category: 13 - PHYSICS

**NCC 3 522 CLEVELAND STATE UNIVERSITY 7370**  
 NOVEL MATERIALS WITH TAILORED CHARACTERISTICS FOR SPACE POWER AND COMMERCIAL APPLICATIONS  
 12/26/1996 - 01/31/2000 FY00: \$0 Total: \$290,835  
 Prin. Invest.: P D HAMBOURGER  
 Tech. Officer: GRC/S K RUTLEDGE  
 CASE Category: 13 - PHYSICS

**NCC 3 581 CLEVELAND STATE UNIVERSITY 7371**  
 ULTRASONIC SCANNER CONTROL AND DATA ACQUISITION  
 12/09/1997 - 11/04/2000 FY00: \$132,622 Total: \$349,349  
 Prin. Invest.: J HEMANN  
 Tech. Officer: GRC/H KAUTZ  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 582 CLEVELAND STATE UNIVERSITY 7372**  
 THE DEVELOPMENT OF ENGINEERING TOMOGRAPHY FOR MONOLITHIC AND COMPOSITE MATERIALS AND COMPONENTS  
 12/09/1997 - 11/29/2000 FY00: \$129,186 Total: \$333,801  
 Prin. Invest.: J HEMANN  
 Tech. Officer: GRC/H E KAUTZ  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 595 CLEVELAND STATE UNIVERSITY 7373**  
 SIMULATION AND PERFORMANCE ANALYSIS OF HYBRID SATELLITE-TERRESTRIAL NETWORKS  
 01/12/1998 - 01/09/2001 FY00: \$87,449 Total: \$226,491  
 Prin. Invest.: V K KONANGI  
 Tech. Officer: GRC/T M WALLETT, GRC/K B BHASIN  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 3 631 CLEVELAND STATE UNIVERSITY 7374**  
 STUDY OF MAGNETIC DAMPING EFFECTS ON CONVECTION DURING DIRECTIONAL SOLIDIFICATION  
 06/26/1998 - 06/07/2000 FY00: \$0 Total: \$87,720  
 Prin. Invest.: D N TEWARI  
 Tech. Officer: GRC/H C DE GROH  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 644 CLEVELAND STATE UNIVERSITY 7375**  
 IN-SITU SPECTROSCOPIC EXAMINATION OF MODEL LURICAN TS SYSTEMS AT HIGH PRESSURE  
 08/01/1998 - 07/31/1999 FY00: \$0 Total: \$5,900  
 Prin. Invest.: D W BALL  
 Tech. Officer: GRC/W MORALES  
 CASE Category: 43 - CHEMICAL ENGR

**NCC 3 646 CLEVELAND STATE UNIVERSITY 7376**  
 ANALYSIS FOR A NEW GUST GENERATOR FOR SUPERSONIC WIND TUNNELS  
 09/03/1998 - 06/30/1999 FY00: \$0 Total: \$14,000  
 Prin. Invest.: M B IBRAHIM  
 Tech. Officer: GRC/K J MELCHER  
 CASE Category: 41 - AERONAUTICAL ENGR

## NASA'S UNIVERSITY PROGRAM

<b>NCC 3 647</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7377</b>
THE STUDY OF THE APPLICATION OF MODERN METHODS OF CONTROL AND INTERFACE TO SCIENTIFIC EFFORTS		
09/04/1998 - 09/30/2001	FY00: \$87,831	Total: \$168,775
Prin. Invest.: G L KRAMERICH Prin. Invest.: NONE		
Tech. Officer: GRC/J M MULLINS		
CASE Category: 49 - ENGINEERING, OTHER		
<b>NCC 3 657</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7378</b>
DEVELOPMENT AND TESTING OF FERRIC SOLUTIONS OF ORG AND PHOSPHATES FOR DEFORMATION AND WEAR CONTROL		
01/11/1999 - 12/14/1999	FY00: \$0	Total: \$15,510
Prin. Invest.: D E GATICA		
Tech. Officer: GRC/W MORALES		
CASE Category: 43 - CHEMICAL ENGR		
<b>NCC 3 674</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7379</b>
BENCHMARK CHEMICAL INVESTIGATIONS ON THE DECOMPOSITION OF PHOSPHATE ESTER LUBRICANTS		
02/17/1999 - 05/01/2000	FY00: \$0	Total: \$5,000
Prin. Invest.: D W BALL		
Tech. Officer: GRC/W MORLES		
CASE Category: 12 - CHEMISTRY		
<b>NCC 3 699</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7380</b>
DEVELOPMENT OF DIGITAL CONTROL TECHNOLOGY FOR POWER MANAGEMENT AND DISTRIBUTION SYSTEMS		
04/02/1999 - 05/14/2002	FY00: \$209,859	Total: \$284,859
Prin. Invest.: Z GAO		
Tech. Officer: GRC/J F SOEDER		
CASE Category: 45 - ELECTRICAL ENGR		
<b>NCC 3 740</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7381</b>
PHYSICAL PROPERTIES AND DURABILITY OF NEW MATERIALS FOR SPACE AND COMMERCIAL APPLICATIONS		
10/21/1999 - 12/02/2002	FY00: \$134,550	Total: \$134,550
Prin. Invest.: P HAMBOURGER		
Tech. Officer: GRC/S K RUTLEDGE		
CASE Category: 13 - PHYSICS		
<b>NCC 3 749</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7382</b>
ADVANCED MATERIALS DEVELOPMENT, EVALUATION, AND MODELING FOR PROPULSION APPLICATIONS		
02/14/2000 - 02/28/2001	FY00: \$89,652	Total: \$89,652
Prin. Invest.: S N TEWARI		
Tech. Officer: GRC/M NATHAL		
CASE Category: 47 - METAL & MATERIALS ENGR		
<b>NCC 3 759</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7383</b>
EPR INVESTIGATIONS OF SILANE POLYMERIZATIONS EPR INVESTIGATIONS OF SILANE POLYMERIZATIONS		
12/30/1999 - 11/30/2000	FY00: \$85,000	Total: \$85,000
Prin. Invest.: J MASNOVI		
Tech. Officer: GRC/S R LEVINE		
CASE Category: 43 - CHEMICAL ENGR		
<b>NCC 3 761</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7384</b>
DESIGN LIFE METHODOLOGIES AND COMPUTER ALGORITHMS FOR THE ANALYSIS OF COMPONENTS FABRICATED FROM CERA		
01/11/2000 - 12/31/2000	FY00: \$64,937	Total: \$64,937
Prin. Invest.: S F DUFFY		
Tech. Officer: GRC/J MANDERSCHIED		
CASE Category: 46 - MECHANICAL ENGR		
<b>NCC 3 764</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7385</b>
SIMULATION AND PERFORMANCE ANALYSIS OF THE AERONAUTICAL TELECOMMUNICATION NETWORK		
01/14/2000 - 01/05/2001	FY00: \$68,000	Total: \$68,000
Prin. Invest.: V K KONANGI		
Tech. Officer: GRC/R KERCZEWSKI		
CASE Category: 45 - ELECTRICAL ENGR		
<b>NCC 3 817</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7386</b>
NEW SOLID POLYMER ELECTROLYTES FOR IMPROVED LITHIUM BATTERIES		
07/24/2000 - 07/31/2001	FY00: \$50,000	Total: \$50,000
Prin. Invest.: D G HEHEMANN		
Tech. Officer: GRC/A E HEPP		
CASE Category: 12 - CHEMISTRY		
<b>NCC 3 818</b>	<b>CLEVELAND STATE UNIVERSITY</b>	<b>7387</b>
STUDY ON DAMPING EFFECTS ON CONVECTION DURING DIRECTIONAL SOLIDIFICATION		
07/24/2000 - 07/09/2001	FY00: \$24,000	Total: \$24,000
Prin. Invest.: D TEWARI		
Tech. Officer: GRC/H DEGROH		
CASE Category: 49 - ENGINEERING, OTHER		
<b>NAG 8 1433</b>	<b>COLLEGE OF WOOSTER</b>	<b>7388</b>
TURBIDITY AND UNIVERSALITY AROUND A LIQUID-LIQUID CRITICAL POINT		
02/06/1998 - 01/31/2003	FY00: \$31,000	Total: \$102,000
Prin. Invest.: D T JACOBS		
Tech. Officer: MSFC/J W POE		
CASE Category: 13 - PHYSICS		
<b>NAG 3 1778</b>	<b>CUYAHOGA COMMUNITY COLLEGE</b>	<b>7389</b>
MENTOR INTERSHIP PARTNERSHIP PROGRAM		
08/16/1995 - 09/02/2000	FY00: \$21,716	Total: \$98,321
Prin. Invest.: R L MOSS		
Tech. Officer: GRC/F H YARRIS		
CASE Category: 41 - AERONAUTICAL ENGR		
<b>NAG 3 2038</b>	<b>CUYAHOGA COMMUNITY COLLEGE</b>	<b>7390</b>
SCIENCE, ENGINEERING, MATHEMATICS AND AEROSPACE ACADEMY REPLICATION		
04/21/1997 - 06/30/1999	FY00: \$0	Total: \$225,000
Prin. Invest.: T MCMANAMON		
Tech. Officer: GRC/R L BONDURANT		
CASE Category: 99 - MULTI INTERDISCIPL, OTHER		
<b>NAG 3 2195</b>	<b>CUYAHOGA COMMUNITY COLLEGE</b>	<b>7391</b>
FIRST GENERATION TECH PREP STUDENT SCHOLARSHIPS IN ADVANCED SCIENCE & TECHNOLOGY		
09/03/1998 - 08/25/1999	FY00: -\$699	Total: \$24,301
Prin. Invest.: S CHAND		
Tech. Officer: GRC/R F LAWRENCE		
CASE Category: 99 - MULTI INTERDISCIPL, OTHER		

<b>NAG 3 2370 CUYAHOGA COMMUNITY COLLEGE 7392</b> SEMAA AND FIRST SCHOLARSHIP SUPPORT PROGRAM SEMAA AND FIRST SCHOLARSHIP SUPPORT PROGRAM 12/22/1999 - 11/09/2000 FY00: \$14,000 Total: \$14,000 <i>Prin. Invest.:</i> S CHAND <i>Tech. Officer:</i> GRC/R LAWRENCE CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 3 734 KENT STATE UNIVERSITY 7400</b> THIN FILM TECHNOLOGY FOR SPACE POWER THIN FILM TECHNOLOGY FOR SPACE POWER 09/23/1999 - 02/28/2001 FY00: \$74,994 Total: \$99,994 <i>Prin. Invest.:</i> D CHOWDHURY <i>Tech. Officer:</i> GRC/A HEPP CASE Category: 19 - PHYSICAL SCIENCE, OTHER
<b>NAS 3 98099 CUYAHOGA COMMUNITY COLLEGE 7393</b> REPLICA OF SCIENCE ENGRG MATH. & AEROSPACE ACADEMY (SEMAA) IN CONNECTION W/NAS3-97168 (MAEL) 06/30/1998 - 09/30/2001 FY00: \$3,250,668 Total: \$6,200,623 <i>Prin. Invest.:</i> L L DARLING <i>Tech. Officer:</i> GRC/R L BONDURANT CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NGT 3 52309 KENT STATE UNIVERSITY 7401</b> GRADUATE STUDENT RESEARCHERS PROGRM - HIGH PERFORMANCE COMPUTING AND COMMUNICATION (HPPC) 07/25/1995 - 10/01/2000 FY00: \$0 Total: \$66,000 <i>Prin. Invest.:</i> S RYAN <i>Tech. Officer:</i> GRC/L SHAW CASE Category: 29 - MATH/COMPUTER SCI, OTHER
<b>NAG 5 4341 DENISON UNIVERSITY 7394</b> LAB SPECTROSCOPY CH4 AND H2 04/23/1997 - 05/31/2000 FY00: \$0 Total: \$112,808 <i>Prin. Invest.:</i> D E MICKELSON <i>Tech. Officer:</i> GSFC/R BEEBE CASE Category: 31 - ATMOSPHERIC SCIENCE	<b>NAG 2 1017 MIAMI UNIVERSITY 7402</b> GRAVIPERCEPTION IN STARCH-DEFICIENT PLANTS IN BIOGRAPHY 10/31/1995 - 12/31/2000 FY00: \$30,618 Total: \$297,282 <i>Prin. Invest.:</i> J Z KISS <i>Tech. Officer:</i> ARC/C M WINGET, ARC/G C JAHNS CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)
<b>NAG 3 2416 KENT STATE UNIVERSITY 7395</b> LANDSCAPE PARAMETERIZATION AND CLASSIFICATION FOR VISUAL- IZATION OF LANDSAT ETM - OHIOVIEW 05/09/2000 - 04/30/2001 FY00: \$105,000 Total: \$105,000 <i>Prin. Invest.:</i> D MUNRO-STASIUK <i>Tech. Officer:</i> GRC/T SCOTT CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 3 2436 MIAMI UNIVERSITY 7403</b> BUILDING AND ENHANCING AN OHIOVIEW GEOSPATIAL DIGITAL LIBRARY FOR K-12, HIGHER EDUCATION AND THEGE 05/22/2000 - 05/15/2001 FY00: \$105,000 Total: \$105,000 <i>Prin. Invest.:</i> J MILLARD <i>Tech. Officer:</i> GRC/T M SCOTT CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 3638 KENT STATE UNIVERSITY 7396</b> LIQUID CRYSTAL FOCAL-PLANE SHUTTERS 03/07/1997 - 02/28/2000 FY00: \$0 Total: \$99,100 <i>Prin. Invest.:</i> D K YANG <i>Tech. Officer:</i> GSFC/H HASAN CASE Category: 11 - ASTRONOMY	<b>NCC 2 1200 MIAMI UNIVERSITY 7404</b> ANALYSIS OF A NOVEL SENSORY MECHANISM IN ROOT PHOTOTROPISM 09/05/2000 - 02/28/2001 FY00: \$20,000 Total: \$20,000 <i>Prin. Invest.:</i> J Z KISS <i>Tech. Officer:</i> ARC/D REISS-BUBENHEIM, ARC/R W BERTHLOD CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)
<b>NCC 3 563 KENT STATE UNIVERSITY 7397</b> THIN FILM BATTERIES 06/17/1997 - 01/31/2001 FY00: \$0 Total: \$147,000 <i>Prin. Invest.:</i> C VARCAS ABURTO, R URIBE <i>Tech. Officer:</i> GRC/A F HEPP CASE Category: 12 - CHEMISTRY	<b>NGT 5 50041 MIAMI UNIVERSITY 7405</b> THE ROLE OF INTEGRINS IN THE TRANSDUCTION OF GRAVITY 08/15/1997 - 08/31/1999 FY00: \$0 Total: \$43,965 <i>Prin. Invest.:</i> J Z KISS/SWATZELL <i>Tech. Officer:</i> GSFC/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NCC 3 721 KENT STATE UNIVERSITY 7398</b> E-BEAM SENSITIVE POLYIMIDES E-BEAM SENSITIVE POLYIMIDES 07/02/1999 - 09/22/2001 FY00: \$66,319 Total: \$125,098 <i>Prin. Invest.:</i> R J TWIEG <i>Tech. Officer:</i> GRC/M A MEADOR CASE Category: 47 - METAL & MATERIALS ENGR	<b>NAG 5 7789 NORTHEASTERN OHIO UNIV COL OF MEDICINE 7406</b> THE EFFECT OF HYPERGRAVITY ON BONE CELL CULTURES 11/16/1998 - 07/31/2001 FY00: \$91,875 Total: \$374,743 <i>Prin. Invest.:</i> W J LANDIS <i>Tech. Officer:</i> GSFC/M M AVERNER CASE Category: 59 - LIFE SCIENCE, OTHER
<b>NCC 3 729 KENT STATE UNIVERSITY 7399</b> ANALYSIS AND CHARACTERIZATION OF ADVANCED SYSTEMS FOR AERO- SPACE APPLICATIONS 08/25/1999 - 08/31/2000 FY00: \$0 Total: \$51,410 <i>Prin. Invest.:</i> A CHOWDHURY, NONE <i>Tech. Officer:</i> GRC/A F HEPP CASE Category: 12 - CHEMISTRY	<b>NAG 9 1074 OHIO NORTHERN UNIVERSITY 7407</b> SUMMER FACILITY DIRECTOR'S GRANT 01/20/1999 - 12/31/1999 FY00: -\$2,267 Total: \$13,233 <i>Prin. Invest.:</i> C A SHEARROW <i>Tech. Officer:</i> JSC/D G SICKOREZ CASE Category: 99 - MULTI INTERDISCIPL, OTHER



**NAG 2 1190** **OHIO STATE UNIVERSITY** **7408**  
 THE REGULATION OF GROWTH IN THE DISTAL ELONGATION ZONE OF  
 MAIZE ROOTS  
 03/20/1998 - 04/30/2001 FY00: \$85,221 Total: \$261,120  
 Prin. Invest.: M L EVANS, H ISHIKAWA  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NAG 2 1411** **OHIO STATE UNIVERSITY** **7409**  
 ANALYSIS OF THE INTERACTION OF ENVIRONMENTAL SIGNAL TRANSDUC-  
 TION PATHWAYS USING TRANSDUCTION  
 06/21/2000 - 12/14/2000 FY00: \$82,668 Total: \$82,668  
 Prin. Invest.: M L EVANS  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1764** **OHIO STATE UNIVERSITY** **7410**  
 THE EFFECTS OF MAGNETIC NOZZLE CONFIGURATIONS OF PLASMA  
 THRUSTERS  
 07/07/1995 - 07/04/2000 FY00: \$0 Total: \$351,483  
 Prin. Invest.: P J TURCHI  
 Tech. Officer: GRC/M MANTENIEKS  
 CASE Category: 13 - PHYSICS

**NAG 3 1947** **OHIO STATE UNIVERSITY** **7411**  
 CRYSTAL GROWTH & FLUID MECHANICS PROBLEMS IN DIRECTIONAL  
 SOLIDIFICATION  
 08/09/1996 - 06/30/2002 FY00: \$42,000 Total: \$408,000  
 Prin. Invest.: S TANVEER  
 Tech. Officer: GRC/A CHAIT  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 1979** **OHIO STATE UNIVERSITY** **7412**  
 PLANETARY GEAR DYNAMICS & VIBRATION ISOLATION IN ROTORCRAFT  
 TRANSMISSIONS  
 10/24/1996 - 02/28/2001 FY00: \$48,711 Total: \$149,438  
 Prin. Invest.: R G PARKER  
 Tech. Officer: GRC/T L KANTZ  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 1986** **OHIO STATE UNIVERSITY** **7413**  
 MIXING ENHANCEMENT & NOISE REDUCTION IN HIGH REYNOLDS NUMBER  
 SUPERSONIC JETS  
 11/06/1996 - 10/31/1999 FY00: -\$561 Total: \$268,506  
 Prin. Invest.: D, M SAMIMY  
 Tech. Officer: GRC/K Q ZAMAN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2007** **OHIO STATE UNIVERSITY** **7414**  
 A STUDY OF TAILPLANE ICING  
 01/27/1997 - 06/14/1999 FY00: \$0 Total: \$70,030  
 Prin. Invest.: G M GREYOREK  
 Tech. Officer: GRC/T P RATUVASKY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2084** **OHIO STATE UNIVERSITY** **7415**  
 INTELLIGENT FAULT TOLERANT ENGINE CONTROL INTELLIGENT FAULT  
 TOLERANT ENGINE CONTROL  
 10/30/1997 - 10/31/2000 FY00: \$103,263 Total: \$298,161  
 Prin. Invest.: K M PASSINO  
 Tech. Officer: GRC/T H GUO, GRC/J LITT  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2090** **OHIO STATE UNIVERSITY** **7416**  
 RESEARCH ON HIGH TEMPERATURE INSULATION FOR ELECTRICAL  
 CONDUCTORS  
 02/27/1998 - 03/31/2000 FY00: \$0 Total: \$81,087  
 Prin. Invest.: E KYEIDLER  
 Tech. Officer: GRC/J LEL, GRC/G C FRALIKE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2138** **OHIO STATE UNIVERSITY** **7417**  
 ULTRASOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS  
 ULTRASOUND THERMAL FIELD IMAGING OF OPAQUE FLUIDS  
 03/06/1998 - 12/31/2002 FY00: \$81,000 Total: \$251,000  
 Prin. Invest.: C D ANDERHECK  
 Tech. Officer: GRC/D W GRIFFIN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2157** **OHIO STATE UNIVERSITY** **7418**  
 UNSTEADY EFFECTS (INCLUDING FILM COOLING) ON HIGH PRESSURE  
 TUBINESS: ANALYTICAL AND EXPERIMENTAL  
 04/22/1998 - 09/30/2000 FY00: \$0 Total: \$110,843  
 Prin. Invest.: M G DUNN, R S ABHARI  
 Tech. Officer: GRC/K C CIVISKAS  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2202** **OHIO STATE UNIVERSITY** **7419**  
 MAGNETIC NOZZLE STUDIES FOR ADVANCED ROCKET PROPULSION  
 09/25/1998 - 09/30/2000 FY00: \$0 Total: \$50,000  
 Prin. Invest.: P J TURCHI  
 Tech. Officer: GRC/C H WILLIAMS  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 3 2215** **OHIO STATE UNIVERSITY** **7420**  
 DEVELOPMENT OF HIGH PERFORMANCE III-V SPACE PHOTOVOLTAICS ON  
 SI-BASED SUBSTRATES  
 12/24/1998 - 01/31/2001 FY00: \$27,995 Total: \$77,995  
 Prin. Invest.: D A RINGEL  
 Tech. Officer: GRC/D M WILT  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 2233** **OHIO STATE UNIVERSITY** **7421**  
 CHARACTERIZATION OF COMPOSITES RESPONSE AT HIGH RATES OF  
 DEFORMATION  
 02/19/1999 - 11/12/2000 FY00: \$0 Total: \$45,000  
 Prin. Invest.: A GILAT  
 Tech. Officer: GRC/G D ROBERTS  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2256** **OHIO STATE UNIVERSITY** **7422**  
 WAVELET COMPRESSION OF SATELLITE-TRANSMITTED DIGITAL MAMMO-  
 GRAMS  
 04/06/1999 - 03/31/2000 FY00: \$0 Total: \$21,175  
 Prin. Invest.: Y F ZHENG  
 Tech. Officer: GRC/R J KERCZEWSKI  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 3 2316** **OHIO STATE UNIVERSITY** **7423**  
 MAGNETIC NOZZLE STUDIES FOR ADVANCED ROCKET PROPULSION  
 01/07/2000 - 01/31/2001 FY00: \$129,998 Total: \$129,998  
 Prin. Invest.: P J TURCHI  
 Tech. Officer: GRC/C H WILLIAMS  
 CASE Category: 49 - ENGINEERING, OTHER

<p><b>NAG 3 2339</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7424</b>  COMPUTATIONAL NONEQUILIBRIUM PLASMA DYNAMICS COMPUTATIONAL  NONEQUILIBRIUM PLASMA DYNAMICS  02/23/2000 - 02/16/2001                      FY00: \$60,000                      Total: \$60,000  Prin. Invest.: I ADAMOVICH  Tech. Officer: GRC/S J SCHNEIDER  CASE Category: 46 - MECHANICAL ENGR</p>	<p><b>NAG 5 3525</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7432</b>  QUASAR ABSORPTION IN THE UV: PROBING THE INTERGALA  11/13/1996 - 09/14/2001                      FY00: \$227,800                      Total: \$552,800  Prin. Invest.: D H WEINBERG  Tech. Officer: GSFC/R K OLIVERSEN  CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 3 2410</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7425</b>  DEMONSTRATING THE VALUE OF SATELLITE INFORMATION F OR  DEVELOPMENT AND PLANNING IN APPALACHIAN OHIO -  05/11/2000 - 05/31/2001                      FY00: \$105,000                      Total: \$105,000  Prin. Invest.: J K KLEIN  Tech. Officer: GRC/T M SCOTT  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 3983</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7433</b>  MILLIMETER AND SUBMILLIMETER SPECTROSCOPY OF MOLEC IMPOR-  TANCE  03/03/1997 - 12/31/2000                      FY00: \$199,324                      Total: \$491,336  Prin. Invest.: F C DEELUCIA  Tech. Officer: GSFC/M J KURYLO  CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 3 2412</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7426</b>  OHIOVIEW WORK (2 PROPOSALS) DESIGN OF A USER FRIEN DLY DATA  MINING APPROACH FOR GEO-REFERENCED IMAGE  05/04/2000 - 04/30/2001                      FY00: \$230,000                      Total: \$230,000  Prin. Invest.: D L MORRISON  Tech. Officer: GRC/T M SCOTT  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 4075</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7434</b>  A COOPERATIVE PALEOCLIMATE STUDY OF GRAHAM BELL IC LAND,  RUSSIA  05/06/1997 - 06/30/1999                      FY00: -\$515                      Total: \$265,910  Prin. Invest.: D L THOMPSON  Tech. Officer: GSFC/R H THOMAS  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 3 2428</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7427</b>  OHIO VIEW PRODUCT DEFINITION WORKSHOPS OHIO VIEW PRODUCT  DEFINITION WORKSHOPS  05/31/2000 - 09/30/2000                      FY00: \$20,000                      Total: \$20,000  Prin. Invest.: S DAVIS  Tech. Officer: GRC/T M SCOTT  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 4250</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7435</b>  SAR-BASED STRUCTURAL MAPPING OF THE TRANSANTARCTIC  03/24/1997 - 03/31/2001                      FY00: \$17,156                      Total: \$165,420  Prin. Invest.: T J WILSON  Tech. Officer: GSFC/S H GOGINENI  CASE Category: 32 - GEOLOGICAL SCIENCE</p>
<p><b>NAG 3 2438</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7428</b>  PLASMA THRUSTERS RESEARCH (PARTS I AND III) PLASMA THRUSTERS  RESEARCH (PARTS I AND III)  05/19/2000 - 05/18/2001                      FY00: \$89,999                      Total: \$89,999  Prin. Invest.: D Y YORK  Tech. Officer: GRC/E J PENCIL  CASE Category: 13 - PHYSICS</p>	<p><b>NAG 5 4849</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7436</b>  RADARSAT: THE ANTARCTIC MAPPING PROJECT  07/23/1997 - 03/31/2000                      FY00: \$0                      Total: \$1,142,022  Prin. Invest.: D JEZEK  Tech. Officer: GSFC/S GOGINENI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 2996</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7429</b>  EXTRACTION AND INTERPRETATION OF POLAR LITHOSPHERI ANOMALIES  FROM COMBINED OERSTED AND MAGSAT DATA  07/10/1995 - 06/30/2000                      FY00: \$0                      Total: \$174,976  Prin. Invest.: R VON FRESE  Tech. Officer: GSFC/P TAYLOR  CASE Category: 32 - GEOLOGICAL SCIENCE</p>	<p><b>NAG 5 6001</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7437</b>  SATELITE AND MODEL ANALYSIS OF THE ATMOSPHERIC MOI LATITUDES  08/10/1997 - 07/31/2001                      FY00: \$44,676                      Total: \$368,150  Prin. Invest.: D BROMWICH  Tech. Officer: HQ/S GOGINENI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 3111</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7430</b>  DARK MATTER AND COSMIC STRUCTURE FORMATION  10/24/1995 - 10/31/1999                      FY00: -\$2,329                      Total: \$204,671  Prin. Invest.: D H WEINBERG  Tech. Officer: GSFC/D WEST  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 6344</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7438</b>  HUMAN INTERACTION DESIGN FOR ANOMALY RESPONSE  09/11/1997 - 08/31/1999                      FY00: \$0                      Total: \$66,000  Prin. Invest.: D WOODS  Tech. Officer: GSFC/G FOGLEMAN  CASE Category: 59 - LIFE SCIENCE, OTHER</p>
<p><b>NAG 5 3497</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7431</b>  REVERBERATION MAPPING OF MARKARIAN 335  11/27/1996 - 11/30/1998                      FY00: -\$658                      Total: \$41,342  Prin. Invest.: B M PETERSON  Tech. Officer: GSFC/D K WEST  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 6817</b>                      <b>OHIO STATE UNIVERSITY</b>                      <b>7439</b>  SPATIAL AND TEMPORAL VARIABILITY OF NET ANNUAL ACC UMULATION  AND CLIMATE IN GREENLAND  01/07/1998 - 12/31/2000                      FY00: \$66,183                      Total: \$305,113  Prin. Invest.: E S MOSLEY-THOMPSON  Tech. Officer: GSFC/S GOGINENI  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>

## NASA'S UNIVERSITY PROGRAM

OHIO

**NAG 5 6818 OHIO STATE UNIVERSITY 7440**  
 DETERMINING GREENLAND ICESHEET ACCUMULATION RATES FROM  
 RADAR REMOTE SENSING  
 01/07/1998 - 12/31/2000 FY00: \$95,000 Total: \$265,722  
 Prin. Invest.: K C JEZEK  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6908 OHIO STATE UNIVERSITY 7441**  
 ATOMIC DATABASE FOR ASTROPHYSICS FROM THE IRON PROJECT  
 01/23/1998 - 01/31/2001 FY00: \$47,000 Total: \$138,000  
 Prin. Invest.: A PRADHAN  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7116 OHIO STATE UNIVERSITY 7442**  
 STAR FORMATION AND THE INTERSTELLAR MEDIUM IN SO GALAXIES  
 USING ROSAT POINTED OBS  
 04/15/1998 - 07/14/2001 FY00: \$0 Total: \$8,563  
 Prin. Invest.: P ESKRIDGE  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7150 OHIO STATE UNIVERSITY 7443**  
 STANDARD & NONSTANDARD STELLAR MODELS: IMPLICATIONS FOR  
 CLUSTER AGES AND LATE EVOLUTIONARY STAGES  
 04/02/1998 - 03/14/2001 FY00: \$95,142 Total: \$300,142  
 Prin. Invest.: M H PINSONNEAULT  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7284 OHIO STATE UNIVERSITY 7444**  
 VERIFICATION AND IMPROVEMENT OF ERS-1/2 ALTIMETER GEOPHYSICAL  
 DATA RECORDERS FOR GLOBAL CHANGES  
 04/22/1998 - 06/30/2001 FY00: \$35,265 Total: \$132,378  
 Prin. Invest.: C K SHUM  
 Tech. Officer: GSFC/E J LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7574 OHIO STATE UNIVERSITY 7445**  
 FUNDING FOR GRAVITY & TIME VARYING GRAVITY FIELD RECOVERY  
 (SENH98-0144)  
 08/04/1998 - 01/31/2001 FY00: \$100,000 Total: \$250,000  
 Prin. Invest.: C K SHUM  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7589 OHIO STATE UNIVERSITY 7446**  
 SEARCHING FOR EXTRA-SOLAR SYSTEM PLANETS USING MULTICOLOR  
 MICROLENSING OBSERVATIONS  
 06/30/1998 - 03/31/2001 FY00: \$46,000 Total: \$142,400  
 Prin. Invest.: D L DEPOY  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8313 OHIO STATE UNIVERSITY 7447**  
 SUPPORT OF GRAVITATIONAL MICROLENSING FOLLOW-UP OBSERVA-  
 TIONS BY THE PLANET COLLABORATION  
 03/23/1999 - 02/28/2001 FY00: \$0 Total: \$125,000  
 Prin. Invest.: D L DEPOY  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8423 OHIO STATE UNIVERSITY 7448**  
 ATOMIC PROCESSES IN X-RAY ASTROPHYSICS (ATP 98)  
 04/15/1999 - 04/14/2001 FY00: \$59,346 Total: \$122,346  
 Prin. Invest.: A K PRADHAN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8455 OHIO STATE UNIVERSITY 7449**  
 BAYESIAN HIERARCHICAL AIR-SEA INTERACTION MODELING: DEVELOP-  
 MENT AND APPLICATION TO THE LABR  
 04/12/1999 - 05/31/2001 FY00: \$16,239 Total: \$32,276  
 Prin. Invest.: K N BERLINER Prin. Invest.: NONE  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8632 OHIO STATE UNIVERSITY 7450**  
 MODELING GREENLAND OUTLET GLACIERS  
 06/28/1999 - 06/30/2001 FY00: \$0 Total: \$70,761  
 Prin. Invest.: C DER VEEN  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1267 OHIO STATE UNIVERSITY 7451**  
 REVERSE MICELLE BASED SYNTHESIS OF MICROPOROUS MATERIALS IN  
 MICROGRAVITY  
 05/23/1996 - 05/31/2000 FY00: \$41,500 Total: \$332,000  
 Prin. Invest.: P K DUTTA, R ANSARI, C T KRESGE  
 Tech. Officer: MSFC/P DOTY, MSFC/R W ALLEN  
 CASE Category: 13 - PHYSICS

**NAG 8 1441 OHIO STATE UNIVERSITY 7452**  
 GRAVITATIONAL EFFECTS IN BOSE-EINSTEIN CONDENSATE OF ATOMIC  
 GASES  
 03/06/1998 - 01/31/2003 FY00: \$55,000 Total: \$142,000  
 Prin. Invest.: T HO  
 Tech. Officer: MSFC/D HUBBARD  
 CASE Category: 13 - PHYSICS

**NAG 8 1470 OHIO STATE UNIVERSITY 7453**  
 R/S INTERDIFFUSION IN THE PRESENCE OF FREE CONVECTION  
 03/26/1998 - 01/31/2002 FY00: \$80,000 Total: \$174,333  
 Prin. Invest.: P K GUPTA  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1670 OHIO STATE UNIVERSITY 7454**  
 FUNDAMENTAL STUDIES OF CRYSTAL GROWTH OF MICROPOROUS  
 MATERIALS  
 06/05/2000 - 11/30/2003 FY00: \$77,217 Total: \$77,217  
 Prin. Invest.: P K DUTTA  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 9 1005 OHIO STATE UNIVERSITY 7455**  
 ORIENTATION FOR INTERVENTION: SUPPORTING MISSION AWARENESS IN SPACE OPERATIONS  
 05/06/1998 - 06/30/2001 FY00: \$85,000 Total: \$210,000  
*Prin. Invest.:* D D WOODS  
*Tech. Officer:* JSC/J DETROVE  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAGW 3677 OHIO STATE UNIVERSITY 7456**  
 SATELLITE AND MODEL ANALYSIS OF THE ATMOSPHERIC MOISTURE BUDGET  
 06/30/1993 - 09/30/1998 FY00: -\$549 Total: \$496,252  
*Prin. Invest.:* D H BROMWICH  
*Tech. Officer:* HQ/R H THOMAS, HQ/R A SCHIFFER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG10 179 OHIO STATE UNIVERSITY 7457**  
 DIFFERENTIATION IN SPACE GROWN MOSS  
 12/07/1995 - 12/14/1999 FY00: -\$323 Total: \$286,070  
*Prin. Invest.:* F SACK  
*Tech. Officer:* KSC/W KNOLL  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG10 263 OHIO STATE UNIVERSITY 7458**  
 DEVELOPMENT OF GRAVITY SENSITIVE PLANT CELLS CERATODON IN MICROGRAVITY  
 07/14/1999 - 11/30/2000 FY00: \$116,878 Total: \$186,995  
*Prin. Invest.:* F SACK  
*Tech. Officer:* KSC/G ETHERIDGE  
 CASE Category: 55 - AGRICULTURE

**NAG13 42 OHIO STATE UNIVERSITY 7459**  
 A CENTER FOR THE COMMERCIAL DEVELOPMENT OF SPACE: REAL-TIME AIRBORNE/SATELLITE MAPPING  
 01/10/1997 - 02/08/1999 FY00: -\$1,128 Total: \$2,901,547  
*Prin. Invest.:* J D BOSSLER  
*Tech. Officer:* SSC/H CARR  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG13 00039 OHIO STATE UNIVERSITY 7460**  
 HIERARCHICAL SEGMENTATION AND ATTRIBUTION OF HIGH RESOLUTION AERIAL IMAGES  
 05/19/2000 - 05/18/2001 FY00: \$200,000 Total: \$200,000  
*Prin. Invest.:* K BOYER  
*Tech. Officer:* SSC/B DAVIS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAS 1 98102 OHIO STATE UNIVERSITY 7461**  
 FINAL TESTING AND EVALUATION OF ATR LOW FREQUENCY COMPACT RANGE FACILITY  
 04/07/1998 - 09/30/1999 FY00: \$0 Total: \$250,000  
*Prin. Invest.:* N D BURNSIDE  
*Tech. Officer:* LARC/M GILREATH  
 CASE Category: 45 - ELECTRICAL ENGR

**NAS 5 30946 OHIO STATE UNIVERSITY 7462**  
 GLRS TEAM MEMBER SUPPORT TO THE EARTH OBSERVING SYSTEM (EOS) PROGRAM  
 12/18/1990 - 10/01/1999 FY00: -\$166 Total: \$596,596  
*Prin. Invest.:* R H THOMAS  
*Tech. Officer:* GSFC/T W HAMILTON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCA 3 122 OHIO STATE UNIVERSITY 7463**  
 2.1.5.3 VALIDATE ENGINE MODULE USING TEST DATA  
 03/04/1997 - 03/31/2000 FY00: \$0 Total: \$69,000  
*Prin. Invest.:* R FORTNER  
*Tech. Officer:* GRC/J L MUSGRAVE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 830 OHIO STATE UNIVERSITY 7464**  
 DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN THE NATIONAL AVIATION SYSTEM  
 10/19/1993 - 09/30/1998 FY00: \$0 Total: \$384,080  
*Prin. Invest.:* P J SMITH  
*Tech. Officer:* ARC/J M ORASANU  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 2 1123 OHIO STATE UNIVERSITY 7465**  
 DISTRIBUTED COOPERATIVE PROBLEM-SOLVING IN AIRCARRIER & AIR TRAFFIC MANAGEMENT INTERACTIONS  
 06/09/1999 - 05/31/2000 FY00: \$0 Total: \$96,018  
*Prin. Invest.:* P J SMITH  
*Tech. Officer:* ARC/J M ORASANU  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 2 1130 OHIO STATE UNIVERSITY 7466**  
 DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN AIRCARRIER & AIR TRAFFIC COMMUNICATION  
 08/04/1999 - 07/14/2000 FY00: \$0 Total: \$93,000  
*Prin. Invest.:* C E MCCOY  
*Tech. Officer:* ARC/J M ORASANU  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 2 5251 OHIO STATE UNIVERSITY 7467**  
 MINATURIZATION METHODOLOGIES IN BIOMEDICAL AND CHEMICAL SENSOR APPLICATIONS AT NASA  
 01/28/1998 - 11/30/1999 FY00: \$14,350 Total: \$70,350  
*Prin. Invest.:* M MADOU  
*Tech. Officer:* ARC/J W HINES, ARC/M G SKIDMORE  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 3 434 OHIO STATE UNIVERSITY 7468**  
 DEVELOPMENT OF LOW REYNOLDS NUMBER HEAT EXCHANGERS  
 09/25/1995 - 06/02/2000 FY00: \$0 Total: \$824,635  
*Prin. Invest.:* R N CHRISTENSEN, Y GUEZENNEC  
*Tech. Officer:* GRC/T T MOCKLER, GRC/D BENTS  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 733 OHIO STATE UNIVERSITY 7469**  
 DESIGN AND DEVELOPMENT OF SMART ELECTROMAGNETIC STRUCTURES  
 09/22/1999 - 09/30/2000 FY00: \$0 Total: \$18,500  
*Prin. Invest.:* G WASHINGTON  
*Tech. Officer:* GRC/R ROMANOFSKY  
 CASE Category: 45 - ELECTRICAL ENGR

**NGT 3 52355 OHIO STATE UNIVERSITY 7470**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM  
 06/24/1999 - 06/30/2000 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* S A RINGEL  
*Tech. Officer:* GRC/F J MONTEGANI  
 CASE Category: 45 - ELECTRICAL ENGR

## NASA'S UNIVERSITY PROGRAM

<b>NGT 3 52363</b>	<b>OHIO STATE UNIVERSITY</b>	<b>7471</b>	GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM	FY00: \$22,000	Total: \$22,000
06/12/2000 - 09/18/2001	Prin. Invest.: P K DUTTA	Tech. Officer: GRC/F J MONTEGANI	CASE Category: 43 - CHEMICAL ENGR		
<b>NGT 5 30012</b>	<b>OHIO STATE UNIVERSITY</b>	<b>7472</b>	AN ICE CORE PALEOCLIMATE STUDY OF WINDY DOME, FRAN DEVELOPMENT OF A SEA ICE PROXY FROM SATELLITE AND	FY00: \$0	Total: \$66,000
10/14/1996 - 08/31/2000	Prin. Invest.: L G THOMPSON	Tech. Officer: GSFC/G ASRAR	CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NGT 5 30042</b>	<b>OHIO STATE UNIVERSITY</b>	<b>7473</b>	BIOMASS BURNING IN TROPICAL RAIN FORESTS: AN ANALY AND LAND USE PRACTICE TO ASSESS BURNING PATTERNS	FY00: \$0	Total: \$66,000
10/17/1996 - 09/30/2000	Prin. Invest.: L BROWN/SORRENSEN	Tech. Officer: GSFC/M WEI	CASE Category: 39 - ENVIRONMENTAL SCI, OTHER		
<b>NGT 5 50015</b>	<b>OHIO STATE UNIVERSITY</b>	<b>7474</b>	THE ROLE OF ELECTRICAL EVENTS IN CONTROLLING DIFFE GRAVI-TROPISM IN THE DEZ	FY00: \$0	Total: \$66,000
09/06/1997 - 12/31/2000	Prin. Invest.: M EVANS	Tech. Officer: HQ/A NURRIDIN	CASE Category: 99 - MULTI INTERDISCIPL, OTHER		
<b>NAG 1 2036</b>	<b>OHIO UNIVERSITY</b>	<b>7475</b>	MODIFYING & TESTING ATC CONTROLLER INTERFACE (CI) FOR DATA LINK CLEARANCES	FY00: \$56,225	Total: \$386,981
03/24/1998 - 02/28/2001	Prin. Invest.: J M RANKIN, P MATTSO	Tech. Officer: LARC/R W WILLS	CASE Category: 45 - ELECTRICAL ENGR		
<b>NAG 1 2099</b>	<b>OHIO UNIVERSITY</b>	<b>7476</b>	HAPTICS-AUGMENTED NASA EDUCATION VIA THE INTERNET	FY00: \$1	Total: \$30,032
08/10/1998 - 09/30/1999	Prin. Invest.: R L WILLIAMS	Tech. Officer: LARC/J M SEATON	CASE Category: 22 - COMPUTER SCIENCE		
<b>NAG 1 2299</b>	<b>OHIO UNIVERSITY</b>	<b>7477</b>	HAPTICS-AUGMENTED SCIENCE EDUCATION	FY00: \$17,751	Total: \$17,751
05/16/2000 - 05/15/2001	Prin. Invest.: R L WILLIAMS	Tech. Officer: LARC/J M SEATON	CASE Category: 29 - MATH/COMPUTER SCI, OTHER		
<b>NAG 3 2385</b>	<b>OHIO UNIVERSITY</b>	<b>7478</b>	WEATHER DATALINK RESEARCH WEATHER DATALINK RESEARCH	FY00: \$199,976	Total: \$199,976
04/05/2000 - 03/30/2001	Prin. Invest.: T A SKIDMORE	Tech. Officer: GRC/P E POINATTE	CASE Category: 45 - ELECTRICAL ENGR		
<b>NAG 5 3050</b>	<b>OHIO UNIVERSITY</b>	<b>7479</b>	THE THREE DIMENSIONAL MASS DISTRIBUTIONS IN ELLIPTICAL GALAXIES	FY00: \$0	Total: \$119,326
09/01/1995 - 06/14/1999	Prin. Invest.: T STATLER	Tech. Officer: GSFC/D WEST	CASE Category: 11 - ASTRONOMY		
<b>NAG 5 3563</b>	<b>OHIO UNIVERSITY</b>	<b>7480</b>	IR SPECTROSCOPY OF THE LOWEST LUMINOSITY SY 1 NUCL	FY00: \$0	Total: \$51,800
01/29/1997 - 04/30/2000	Prin. Invest.: J C SHIELDS	Tech. Officer: GSFC/D K WEST	CASE Category: 11 - ASTRONOMY		
<b>NAG 5 3690</b>	<b>OHIO UNIVERSITY</b>	<b>7481</b>	MULTIWAVELENGTH STUDY OF HIGH REDSHIFT QUASARS	FY00: \$2,423	Total: \$9,890
01/22/1997 - 01/31/1999	Prin. Invest.: J C SHIELDS	Tech. Officer: GSFC/D K WEST	CASE Category: 11 - ASTRONOMY		
<b>NAG 5 00185</b>	<b>OHIO UNIVERSITY</b>	<b>7482</b>	ADAPTIVE MANAGEMENT OF COMPUTING & NETWORK RESOURCES FOR REAL-TIME SENSOR WEBS.	FY00: \$188,307	Total: \$188,307
08/31/2000 - 08/30/2002	Prin. Invest.: L WELCH, NONE	Tech. Officer: GSFC/B PFAR	CASE Category: 22 - COMPUTER SCIENCE		
<b>NCC 1 351</b>	<b>OHIO UNIVERSITY</b>	<b>7483</b>	A DTED TERRAIN AVOIDANCE SYS UTILIZING GPS AND RADAR ALTIMETER MONITORING, RE NRA 98-LARC-10	FY00: \$320,000	Total: \$367,000
09/01/1999 - 12/31/2002	Prin. Invest.: J M RANKIN, D DIGGLE, M U DE HAAG	Tech. Officer: LARC/R M HUESCHEN, LARC/R V PARRISH	CASE Category: 41 - AERONAUTICAL ENGR		
<b>NCC 2 827</b>	<b>OHIO UNIVERSITY</b>	<b>7484</b>	DISTRIBUTED & COOPERATIVE PROBLEM-SOLVING IN THE N ATIONAL AVIATION SYSTEM	FY00: \$0	Total: \$341,713
09/20/1993 - 05/31/2000	Prin. Invest.: C E MCCOY, P J SMITH	Tech. Officer: ARC/J M ORASANU	CASE Category: 59 - LIFE SCIENCE, OTHER		
<b>NCC 2 1036</b>	<b>OHIO UNIVERSITY</b>	<b>7485</b>	WEATHER-RELATED PILOT DECISION-MAKING CONTEXT CATE GORIZA-TION	FY00: \$0	Total: \$132,386
03/25/1998 - 12/31/2000	Prin. Invest.: C E MCCOY	Tech. Officer: ARC/J M ORASANU	CASE Category: 69 - PSYCHOLOGY, OTHER		
<b>NCC 3 430</b>	<b>OHIO UNIVERSITY</b>	<b>7486</b>	HIGH PERFORMANCE TCP/IP APPLICATIONS FOR USE OVER FAST SATELLITE COMMUNICATIONS CHANNELS	FY00: -\$4,423	Total: \$196,330
09/19/1995 - 09/30/1998	Prin. Invest.: H KRUSE	Tech. Officer: GRC/R J SCHERTLER	CASE Category: 49 - ENGINEERING, OTHER		

<p><b>NCC 3 680</b>                      <b>OHIO UNIVERSITY</b>                      <b>7487</b>  A STUDY OF MULTI-USER TCPTRAFFIC OVER ACTS A STUDY OF MULTI-  USER TCPTRAFFIC OVER ACTS  03/10/1999 - 12/31/2000      FY00: \$22,623                      Total: \$87,623  Prin. Invest.: S OSTERMANN  Tech. Officer: GRC/W D IVANCIC  CASE Category: 49 - ENGINEERING, OTHER</p>	<p><b>NAG 3 2390</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7495</b>  HIGH TEMPERATURE ADHESIVES AND STRUCTURAL RESINS HIGH  TEMPERATURE ADHESIVES AND STRUCTURAL RESINS  04/12/2000 - 10/31/2000      FY00: \$41,364                      Total: \$41,364  Prin. Invest.: F W HARRIS  Tech. Officer: GRC/C CHUANG  CASE Category: 47 - METAL &amp; MATERIALS ENGR</p>
<p><b>NAG 1 2067</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7488</b>  NEW RTM/R1 RESINS FOR THE HSCT  05/28/1998 - 05/31/1999      FY00: -\$220                      Total: \$59,780  Prin. Invest.: F W HARRIS  Tech. Officer: LARC/P M HERGENROTHER, LARC/J W CONNELL  CASE Category: 12 - CHEMISTRY</p>	<p><b>NAG 3 2420</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7496</b>  A NEW FINITE ELEMENT FORMULATION ANALYSIS OF AEROS PACE  STRUCTURES  05/11/2000 - 01/09/2001      FY00: \$89,997                      Total: \$89,997  Prin. Invest.: S N PATNAIK  Tech. Officer: GRC/G R HALFORD  CASE Category: 49 - ENGINEERING, OTHER</p>
<p><b>NAG 3 1747</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7489</b>  DEVELOPMENTS IN COUPLED DEFORMATION-DAMAGE AND FRA CTURE  MODELING FOR LIFE PREDICTIONS OF STRUCTURES  05/19/1995 - 09/15/2000      FY00: \$0                      Total: \$557,413  Prin. Invest.: A F SALEEB  Tech. Officer: GRC/S M ARNOLD  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 3 2442</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7497</b>  STEREO IMAGING VELOCIMETRY OF MIXING DRIVEN BY BUOYANCY  INDUCED FLOW FIELDS  05/23/2000 - 11/30/2003      FY00: \$37,433                      Total: \$37,433  Prin. Invest.: C BATUR  Tech. Officer: GRC/W B DUVAL  CASE Category: 49 - ENGINEERING, OTHER</p>
<p><b>NAG 3 2182</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7490</b>  FAST POTENTIAL THEORETIC METHODS FOR FAR-FIELD SOU ND RADI-  ATION PROBLEMS  07/18/1998 - 06/30/2000      FY00: \$0                      Total: \$30,000  Prin. Invest.: D I HAIHARAN  Tech. Officer: GRC/J R SCOTT  CASE Category: 29 - MATH/COMPUTER SCI, OTHER</p>	<p><b>NAG 3 2444</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7498</b>  NE OHIO URBAN GROWTH MONITORING AND MODELING PROTOTYPE  05/24/2000 - 05/18/2001      FY00: \$105,000                      Total: \$105,000  Prin. Invest.: D SIEBERT  Tech. Officer: GRC/T M SCOTT  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 3 2201</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7491</b>  GENERAL CRACK PROBLEMS IN FUNCTIONALLY GRADED MATE RIALS  09/24/1998 - 01/21/1999      FY00: -\$64                      Total: \$41,936  Prin. Invest.: W K BINIENDA  Tech. Officer: GRC/G R HALFORD  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NCC 3 441</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7499</b>  COMPUTATIONAL TOOL AND TECHNIQUES FOR THE MACRO/NUCRIMEME-  CHANICAL ANALYSIS OF COMPOSITE STRUCTURES  12/14/1995 - 09/03/2000      FY00: \$46,809                      Total: \$562,728  Prin. Invest.: A F SALEEB  Tech. Officer: GRC/S M ARNOLD  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 3 2278</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7482</b>  IMPLEMENTATION AND PERFORMANCE EVALUATION OF A DC/ DC  CONVERTER FOR CRYOGENIC APPLICATIONS  07/15/1999 - 06/23/2000      FY00: \$0                      Total: \$30,000  Prin. Invest.: M E ELBULUK  Tech. Officer: GRC/R L PATTERSON  CASE Category: 45 - ELECTRICAL ENGR</p>	<p><b>NCC 3 484</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7500</b>  SOFTWARE &amp; HARDWARE DEVELOPMENT IN COMPUTATIONAL M ATERIALS  SCIENCE  08/09/1996 - 06/08/1999      FY00: \$0                      Total: \$417,996  Prin. Invest.: G YOUNG  Tech. Officer: GRC/A CHAIT  CASE Category: 47 - METAL &amp; MATERIALS ENGR</p>
<p><b>NAG 3 2279</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7493</b>  SYSTEM AND PROPAGATION AVAILABILITY ANALYSIS FOR N ASA'S  ADVANCED AIR TRANSPORTATION TECHNOLOGIES (A  07/12/1999 - 08/14/2001      FY00: \$30,000                      Total: \$74,100  Prin. Invest.: O C UGWJEJE  Tech. Officer: GRC/R J ACOSTA  CASE Category: 45 - ELECTRICAL ENGR</p>	<p><b>NCC 3 526</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7501</b>  UTILIZATION OF FRACTIONAL ORDER SYSTEMS IN CONTROL IN ENGI-  NEERING  01/06/1997 - 12/31/2000      FY00: \$0                      Total: \$85,080  Prin. Invest.: T T HARTLEY  Tech. Officer: GRC/C LORENZO  CASE Category: 49 - ENGINEERING, OTHER</p>
<p><b>NAG 3 2312</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7494</b>  DISCRETE-FREQUENCY NOISE PREDICTIONS IN AN ANNULAR CASCADE  USING TIGER/AWAKEN/TURBO/INFLUX  12/29/1999 - 12/31/2000      FY00: \$19,803                      Total: \$19,803  Prin. Invest.: S SAWYER  Tech. Officer: GRC/E ENVIA  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NCC 3 545</b>                      <b>UNIVERSITY OF AKRON</b>                      <b>7502</b>  DEVELOPMENT OF ADVANCED LIFE PREDICTION &amp; FINITE E LEMENT ANAL-  YSIS TECHNIQUE FOR AEROSPAC COMPONENTS  02/24/1997 - 02/29/2000      FY00: \$0                      Total: \$378,575  Prin. Invest.: D C BUCHTHAL, V K ARYA  Tech. Officer: GRC/G R HALFORD  CASE Category: 49 - ENGINEERING, OTHER</p>

## NASA'S UNIVERSITY PROGRAM

<b>NCC 3 567</b> <b>UNIVERSITY OF AKRON</b> <b>7503</b> DETERMINATION OF OPTIMUM HEATING ZONE LENGTH & CONTROL TERMOUPLE PLACEMENT FOR GRIDMAN CRYSTAL G 07/01/1997 - 02/28/2001 FY00: \$4,998 Total: \$38,997 Prin. Invest.: C BATUR Tech. Officer: GRC/W B DUVAL CASE Category: 46 - MECHANICAL ENGR	<b>NCC 3 744</b> <b>UNIVERSITY OF AKRON</b> <b>7511</b> DESIGN, PROGRESSIVE MODELING, MANUFACTURE, AND TESTING OF COMPOSITE SHIELD FOR TURBINE ENGINE BLADE 12/01/1999 - 11/17/2000 FY00: \$188,690 Total: \$188,690 Prin. Invest.: E SANCAKTAR Tech. Officer: GRC/G D ROBERTS CASE Category: 47 - METAL & MATERIALS ENGR
<b>NCC 3 578</b> <b>UNIVERSITY OF AKRON</b> <b>7504</b> ENHANCEMENTS TO NURBS-BASED FEA AIRFOIL MODLER-SABER 10/24/1997 - 12/06/2000 FY00: \$102,210 Total: \$213,076 Prin. Invest.: A F SALEEB, D A TROWBRIDGE Tech. Officer: GRC/S A THORP CASE Category: 46 - MECHANICAL ENGR	<b>NCC 3 752</b> <b>UNIVERSITY OF AKRON</b> <b>7512</b> STUDIES ON STRESS-STRAIN RELATIONSHIPS OF POLYMERIC MATERIALS USED IN SPACE APPLICATIONS 12/28/1999 - 09/30/2000 FY00: \$84,653 Total: \$84,653 Prin. Invest.: S C JANA Tech. Officer: GRC/A FREED CASE Category: 49 - ENGINEERING, OTHER
<b>NCC 3 579</b> <b>UNIVERSITY OF AKRON</b> <b>7505</b> DESIGN ANALYSIS AND MATERIAL MODELING FOR CERAMIC MATRIX COMPOSITE MATERIALS 10/31/1997 - 11/13/1999 FY00: \$0 Total: \$220,889 Prin. Invest.: W BINIENDA Tech. Officer: GRC/N N NEMETH CASE Category: 47 - METAL & MATERIALS ENGR	<b>NCC 3 785</b> <b>UNIVERSITY OF AKRON</b> <b>7513</b> DEVELOPMENT OF EFFICIENT NUMERICAL ALGORITHMS FOR PREDICTION OF FAR-FIELD ACOUSTIC NOISE 02/07/2000 - 01/05/2001 FY00: \$60,000 Total: \$60,000 Prin. Invest.: K KREIDER Tech. Officer: GRC/J SCOTT CASE Category: 41 - AERONAUTICAL ENGR
<b>NCC 3 615</b> <b>UNIVERSITY OF AKRON</b> <b>7506</b> HIGH TEMPERATURE TESTING AND MODELING OF CERAMIC MATRIX COMPOSITES 06/12/1998 - 08/31/1999 FY00: \$0 Total: \$101,544 Prin. Invest.: W BINIENDA Tech. Officer: GRC/R T BHATT CASE Category: 47 - METAL & MATERIALS ENGR	<b>NCC 3 788</b> <b>UNIVERSITY OF AKRON</b> <b>7514</b> ADVANCED STRUCTURAL, IMPACT AND LIFE ANALYSES OF AEROSPACE COMPONENTS 02/02/2000 - 01/22/2001 FY00: \$152,855 Total: \$152,855 Prin. Invest.: V K ARYA Tech. Officer: GRC/G R HALFORD CASE Category: 49 - ENGINEERING, OTHER
<b>NCC 3 651</b> <b>UNIVERSITY OF AKRON</b> <b>7507</b> NDE METHODS FOR COMMERCIAL AIRCRAFT ENGINES NDE METHODS FOR COMMERCIAL AIRCRAFT ENGINES 11/09/1998 - 11/03/1999 FY00: \$0 Total: \$115,507 Prin. Invest.: W K BINIENDA Tech. Officer: GRC/H E KAUTZ CASE Category: 41 - AERONAUTICAL ENGR	<b>NCC 3 788</b> <b>UNIVERSITY OF AKRON</b> <b>7515</b> DEFORMATION AND LIFE OF POLYMER MATRIX COMPOSITE (PMC) FLYWHEEL ROTORS 03/27/2000 - 03/22/2001 FY00: \$47,932 Total: \$47,932 Prin. Invest.: D F SALEEB Tech. Officer: GRC/A ARNOLD CASE Category: 46 - MECHANICAL ENGR
<b>NCC 3 682</b> <b>UNIVERSITY OF AKRON</b> <b>7508</b> IMPROVED HIGH TEMPERATURE POLYIMIDE COMPOSITES IMPROVED HIGH TEMPERATURE POLYIMIDE COMPOSITES 02/24/1999 - 12/13/2000 FY00: \$213,840 Total: \$371,495 Prin. Invest.: R K EBY Tech. Officer: GRC/M A MEADOR CASE Category: 47 - METAL & MATERIALS ENGR	<b>NCC 3 794</b> <b>UNIVERSITY OF AKRON</b> <b>7516</b> HOMOPOLYROTAXANES AND HOMOPOLYROTAXANED NETWORKS OF PEO 04/20/2000 - 04/18/2001 FY00: \$80,100 Total: \$80,100 Prin. Invest.: C PUGH Tech. Officer: GRC/M MEADOR CASE Category: 12 - CHEMISTRY
<b>NCC 3 716</b> <b>UNIVERSITY OF AKRON</b> <b>7509</b> THEORY, MODELING, SOFTWARE AND HARDWARE DEVELOPMENT IN COMPUTATIONAL MATERIALS SCIENCE 06/25/1999 - 07/06/2003 FY00: \$120,272 Total: \$216,472 Prin. Invest.: G W YOUNG Tech. Officer: GRC/A CHAIT CASE Category: 47 - METAL & MATERIALS ENGR	<b>NCC 3 802</b> <b>UNIVERSITY OF AKRON</b> <b>7517</b> POLYMER SOLID ELECTROLYTES FOR RECHARGEABLE BATTERIES 05/23/2000 - 05/17/2001 FY00: \$50,000 Total: \$50,000 Prin. Invest.: F W HARRIS Tech. Officer: GRC/M MEADOR CASE Category: 12 - CHEMISTRY
<b>NCC 3 738</b> <b>UNIVERSITY OF AKRON</b> <b>7510</b> ANALYSIS AND DESIGN OPTIMIZATION OF MULTI-LAYER PANEL STRUCTURES WITH NEURAL NETWORK AND REGRESSION 10/20/1999 - 12/09/2000 FY00: \$86,086 Total: \$86,086 Prin. Invest.: S N PATNAIK Tech. Officer: GRC/D HOPKINS CASE Category: 49 - ENGINEERING, OTHER	<b>NCC 3 808</b> <b>UNIVERSITY OF AKRON</b> <b>7518</b> DEFECT DETECTION SCHEMES AND ALGORITHMIC DEVELOPMENT FOR LARGE-SCALE SIMULATIONS OF DAMAGING VISCO- 06/18/2000 - 05/22/2001 FY00: \$100,000 Total: \$100,000 Prin. Invest.: A F SALEEB Tech. Officer: GRC/S M ARNOLD CASE Category: 41 - AERONAUTICAL ENGR

**NCC 3 820 UNIVERSITY OF AKRON 7519**  
 MODEL-BASED CONTROL OF BATTERIES AND FUEL CELLS FOR LONGER LIFE  
 08/09/2000 - 08/31/2001 FY00: \$52,000 Total: \$52,000  
 Prin. Invest.: D T HARTLEY  
 Tech. Officer: GRC/M MANZO  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 2 52228 UNIVERSITY OF AKRON 7520**  
 THE DEVELOPMENT OF NEURAL-NETWORK-ENHANCED ELECTRIC AL INDEPENDANCE CARDIOGRAPH FOR HEMODYNAMIC.....  
 08/14/1997 - 02/28/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: B C TAYLOR  
 Tech. Officer: ARC/P S COWINGS  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 3 52327 UNIVERSITY OF AKRON 7521**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/10/1997 - 05/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: R K EBY  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NGT 3 52344 UNIVERSITY OF AKRON 7522**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 07/28/1998 - 05/31/2000 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: R K EBY  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 3 52364 UNIVERSITY OF AKRON 7523**  
 GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM  
 06/13/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: D PERRY  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 12 - CHEMISTRY

**NAG 1 2071 UNIVERSITY OF CINCINNATI 7524**  
 STRUCTURAL SIMILITUDE AND SCALING LAWS  
 05/20/1998 - 05/31/2000 FY00: \$28,017 Total: \$110,017  
 Prin. Invest.: G J SIMITSES  
 Tech. Officer: LARC/J H STARNES, JR.  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NAG 3 1706 UNIVERSITY OF CINCINNATI 7525**  
 A NOVEL SILICON MICROMACHINED INTEGRATED MICRO-THIN FILM MANAGEMENT SYSTEM  
 04/13/1995 - 10/12/1999 FY00: \$0 Total: \$346,436  
 Prin. Invest.: M J KAZMIERCZAK, F M GERNER, H T HENDERSON  
 Tech. Officer: GRC/K W BAKER, GRC/J CALOGEVAS  
 CASE Category: 46 - MECHANICAL ENGINEERING

**NAG 3 1987 UNIVERSITY OF CINCINNATI 7526**  
 INVESTIGATION OF SIMPLEX NOZZLES FOR ADVANCED COMBUSTORS  
 11/08/1996 - 11/01/2000 FY00: \$0 Total: \$220,485  
 Prin. Invest.: S M JENG  
 Tech. Officer: GRC/R R TACINA  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NAG 3 2087 UNIVERSITY OF CINCINNATI 7527**  
 DATA BASE FOR REALISTIC COMPUTATIONAL MODELING OF INLET/COMPRESSOR INTERFACES DURING RAPID FLOW TRANSITION  
 01/16/1998 - 12/31/2000 FY00: \$0 Total: \$252,017  
 Prin. Invest.: M SAJBEN  
 Tech. Officer: GRC/G L COLE  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NAG 3 2281 UNIVERSITY OF CINCINNATI 7528**  
 DEVELOPMENT OF A MACROPOROUS SILICON WICK BASED HEAT ENGINE FOR HEAT TRANSFER FROM MICRO DEVICES  
 07/20/1999 - 01/20/2000 FY00: \$0 Total: \$45,000  
 Prin. Invest.: H HENDERSON  
 Tech. Officer: GRC/S M GENG  
 CASE Category: 45 - ELECTRICAL ENGINEERING

**NAG 3 2437 UNIVERSITY OF CINCINNATI 7529**  
 OHIOVIEW UNDERGRADUATE DISTANCE LEARNING PROTOTYPE OHIOVIEW UNDERGRADUATE DISTANCE LEARNING PROTOTYPE  
 05/22/2000 - 05/15/2001 FY00: \$360,000 Total: \$360,000  
 Prin. Invest.: D BECK  
 Tech. Officer: GRC/T SCOTT  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 3 2451 UNIVERSITY OF CINCINNATI 7530**  
 MICROSCOPIC FLOW VISUALIZATION IN DEMIXING FLUIDS DURING POLY-MER MEMBRANE FORMATION IN LOW-G  
 08/01/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: W B KRANTZ  
 Tech. Officer: GRC/H C DEGROH  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2482 UNIVERSITY OF CINCINNATI 7531**  
 INTEGRATED ATOMIZER/SWIRLER FOR LEAN DIRECT INJECTION COMBUSTION  
 06/14/2000 - 05/31/2001 FY00: \$38,004 Total: \$38,004  
 Prin. Invest.: S JENG  
 Tech. Officer: GRC/R R TACINA  
 CASE Category: 41 - AERONAUTICAL ENGINEERING

**NAG 5 6846 UNIVERSITY OF CINCINNATI 7532**  
 ORDOVICIAN BIODIVERSITY: GEOGRAPHY AND ENVIRONMENT  
 02/12/1998 - 06/30/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: A I MILLER  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7098 UNIVERSITY OF CINCINNATI 7533**  
 USING LANDSAT DATA TO DEVELOP AN IMAGE BASED LOGISTIC REGRESSION MODEL FOR PREDICTING DEFORESTATION  
 05/28/1998 - 11/30/1999 FY00: \$0 Total: \$153,878  
 Prin. Invest.: R C FROHN  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 8886 UNIVERSITY OF CINCINNATI 7534**  
 ULTRA-HOT WINDS FROM DO WHITE DWARFS - FUSE  
 01/27/2000 - 01/31/2001 FY00: \$10,600 Total: \$10,600  
 Prin. Invest.: M L SITKO  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY



## NASA'S UNIVERSITY PROGRAM

<b>NAG 5 9418</b> <b>UNIVERSITY OF CINCINNATI</b> ORDOVICIAN BIODIVERSITY: GEOGRAPHY AND ENVIRONMENT 04/11/2000 - 06/30/2001      FY00: \$47,948      Total: \$47,948 Prin. Invest.: A I MILLER Tech. Officer: GSFC/M MEYER CASE Category: 11 - ASTRONOMY	7535	<b>NGT 5 50040</b> <b>UNIVERSITY OF CINCINNATI</b> A THEORY FOR THE EXACT INTEGRATION OF A REFERENCE L ATTITUDE PROGRAM FORMULATED AS PERTURBED JACOBI 08/15/1997 - 08/31/2000      FY00: \$0      Total: \$44,000 Prin. Invest.: P L RICHARDSON Tech. Officer: GSFC/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER	7543
<b>NAG 5 9475</b> <b>UNIVERSITY OF CINCINNATI</b> IR SPECTROSCOPY OF DUSTY PROTOSTELLAR DISKS 04/20/2000 - 04/30/2001      FY00: \$60,000      Total: \$60,000 Prin. Invest.: M SITKO Tech. Officer: GSFC/J BOYCE CASE Category: 13 - PHYSICS	7536	<b>NGT 5 50265</b> <b>UNIVERSITY OF CINCINNATI</b> NEGATIVE REGULATION OF OSTEOCLASTOGENESIS BY ESTROGENS VIA DIRECT ACTIONS ON HEMATOPOIETIC CELLS 07/07/1999 - 06/30/2001      FY00: \$22,000      Total: \$44,000 Prin. Invest.: J W PIKE Tech. Officer: GSFC/L SMITH CASE Category: 99 - MULTI INTERDISCIPL, OTHER	7544
<b>NAS 1 00123</b> <b>UNIVERSITY OF CINCINNATI</b> PROOF OF CONCEPT MICRO LOOP HEAT PIPE SYSTEM FOR SPACE SOLAR POWER SATELLITES 06/16/2000 - 10/31/2000      FY00: \$150,000      Total: \$150,000 Prin. Invest.: H T HENDERSOM, S BHANSALI Tech. Officer: LARC/C L MOORE, GRC/E GALIHER CASE Category: 46 - MECHANICAL ENGR	7537	<b>NGT 5 52801</b> <b>UNIVERSITY OF CINCINNATI</b> GRADSTUDENT RESEARCH PROGRAM 07/28/1995 - 08/31/2000      FY00: \$0      Total: \$88,000 Prin. Invest.: K N GHIA Tech. Officer: MSFC/P K MCCONNAUGHEY CASE Category: 41 - AERONAUTICAL ENGR	7545
<b>NCC 2 1139</b> <b>UNIVERSITY OF CINCINNATI</b> ADVANCED TRAJECTORY ANALYSIS WITH APPLICATION TO AIR TRAFFIC CONTROL 09/03/1999 - 12/31/2000      FY00: \$37,185      Total: \$47,185 Prin. Invest.: G L SLATER, NONE Tech. Officer: ARC/T J DAVIS, ARC/D R ISAACSON CASE Category: 41 - AERONAUTICAL ENGR	7538	<b>NAG 3 2318</b> <b>UNIVERSITY OF DAYTON</b> QUALITY OF SERVICE FOR REAL-TIME APPLICATIONS OVER NEXT GENERATION DATA NETWORKS 02/09/2000 - 12/31/2000      FY00: \$130,000      Total: \$130,000 Prin. Invest.: M ATIQUZZAMAN Tech. Officer: GRC/W D IVANCIC CASE Category: 22 - COMPUTER SCIENCE	7546
<b>NGT 2 52205</b> <b>UNIVERSITY OF CINCINNATI</b> THE DEPARTURE PROBLEM IN AIR TRAFFIC MANAGEMENT: ANALYSIS CONTROL STRATEGIES & IMPLEMENTATION 09/14/1995 - 08/31/1999      FY00: \$0      Total: \$66,000 Prin. Invest.: G L SLATER, M A BOLENDER Tech. Officer: ARC/T J DAVIS, ARC/J ERZBERGER CASE Category: 99 - MULTI INTERDISCIPL, OTHER	7539	<b>NAG 5 4575</b> <b>UNIVERSITY OF DAYTON</b> INTERSTELLAR DIAMOND GRAINS: SYNTHETIC AND NATURAL 09/12/1997 - 04/30/2000      FY00: \$0      Total: \$100,000 Prin. Invest.: D PHELPS Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY	7547
<b>NGT 5 30049</b> <b>UNIVERSITY OF CINCINNATI</b> USE OF RAINGAGE AND RADAR MEASUREMENTS OF PRECIPIT CALIBRA- TION AND GROUND VALIDATION OF SATELLITE BA 09/06/1997 - 08/31/1999      FY00: \$0      Total: \$22,000 Prin. Invest.: S ISLAM Tech. Officer: GSFC/G ASRAR CASE Category: 99 - MULTI INTERDISCIPL, OTHER	7540	<b>NAG 5 8199</b> <b>UNIVERSITY OF DAYTON</b> EXPERIMENTAL STUDIES OF FE-MG CARBONATES AS INDICATORS OF MARTIAN NEAR-SURFACE CONDITIONS 02/04/1999 - 05/14/2000      FY00: \$0      Total: \$22,000 Prin. Invest.: D M KOZOL Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY	7548
<b>NGT 5 30058</b> <b>UNIVERSITY OF CINCINNATI</b> THIRD YEAR FUNDING: ANALYZING AND PARAMETERIZING HETERO- GENEITY ON LAND SURFACE REPRESENTATIONS & RE 09/06/1997 - 08/31/1999      FY00: \$0      Total: \$22,000 Prin. Invest.: S ISLAM Tech. Officer: GSFC/G ASRAR CASE Category: 99 - MULTI INTERDISCIPL, OTHER	7541	<b>NAG 5 8451</b> <b>UNIVERSITY OF DAYTON</b> DIAMOND, MOISSANITE, AND OSBORNITE: PHYSICS AND CHEMISTRY OF INTER-STELLAR GRAIN FORMATION 04/09/1999 - 10/30/2000      FY00: \$0      Total: \$22,000 Prin. Invest.: A W PHELPS Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY	7549
<b>NGT 5 30108</b> <b>UNIVERSITY OF CINCINNATI</b> SPACE-TIME CHARACTERIZATION OF REMOTELY SENSED SOLAR MOIS- TURE 02/10/1998 - 09/30/2000      FY00: \$0      Total: \$66,000 Prin. Invest.: S ISLAM Tech. Officer: GSFC/G ASRAR CASE Category: 99 - MULTI INTERDISCIPL, OTHER	7542	<b>NAG 5 9804</b> <b>UNIVERSITY OF DAYTON</b> STUDIES WITH SYNTHETIC INTERSTELLAR DIAMOND: RARE GAS INCORPORATION AND PHASE STABILITY 07/14/2000 - 07/14/2001      FY00: \$30,000      Total: \$30,000 Prin. Invest.: A PHELPS Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY	7550

<b>NAG 5 9808 UNIVERSITY OF DAYTON 7551</b> FE-MG CARBONATES AS A MONITOR PHASE OF CARBON DIOX IDE AND OXYGEN FUGACITY ON MARS 07/17/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000 <i>Prin. Invest.:</i> A M KOZIOL <i>Tech. Officer:</i> GSFC/J BOYCE CASE Category: 11 - ASTRONOMY	<b>NGT 3 52351 UNIVERSITY OF DAYTON 7589</b> GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM 06/23/1999 - 07/31/2001 FY00: \$22,000 Total: \$44,000 <i>Prin. Invest.:</i> V JAIN <i>Tech. Officer:</i> GRC/F J MONTEGANI CASE Category: 49 - ENGINEERING, OTHER
<b>NAS 1 99148 UNIVERSITY OF DAYTON 7552</b> OPERATIONS AND MODELING ANALYSIS 09/27/1999 - 10/31/2002 FY00: \$85,500 Total: \$72,500 <i>Prin. Invest.:</i> C E EBELING <i>Tech. Officer:</i> LARC/W D MORRIS CASE Category: 29 - MATH/COMPUTER SCI, OTHER	<b>NAG 1 2244 UNIVERSITY OF TOLEDO 7580</b> DEV DYNAM CONFIGBLE OBJ-ORIENTED FRAMEWORK FOR DIS TRIB'D MULTI-MODAL COMPUTAT'L AEROSP SYS SIMULAT 09/23/1999 - 08/31/2002 FY00: \$78,682 Total: \$109,989 <i>Prin. Invest.:</i> A AETEH, V A REED <i>Tech. Officer:</i> LARC/W K GERDES CASE Category: 22 - COMPUTER SCIENCE
<b>NAS 8 98216 UNIVERSITY OF DAYTON 7553</b> A NEW TECHNIQUE FOR ACHIEVING IMPACT VELOCITIES GREATER THAN 10KM'S 06/01/1998 - 07/31/2000 FY00: \$0 Total: \$299,558 <i>Prin. Invest.:</i> A J PIEKUTOWSKI <i>Tech. Officer:</i> MSFC/G S OLSEN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 3 1718 UNIVERSITY OF TOLEDO 7561</b> VLSI IMPLEMENTATION OF COMMUNICATIONS SYSTEMS 03/23/1995 - 12/10/1999 FY00: \$0 Total: \$271,781 <i>Prin. Invest.:</i> S C KWATRA, M M JAMALI <i>Tech. Officer:</i> GRC/R E JONES CASE Category: 45 - ELECTRICAL ENGR
<b>NCC 3 675 UNIVERSITY OF DAYTON 7554</b> REACTION KERNEL STRUCTURE AND DIRRUSION FLAME STAB ILIZATION 03/25/1999 - 06/28/2000 FY00: -\$23,316 Total: \$42,786 <i>Prin. Invest.:</i> F TAKAHASHI <i>Tech. Officer:</i> GRC/K R SACKSTEDER CASE Category: 49 - ENGINEERING, OTHER	<b>NAG 3 1946 UNIVERSITY OF TOLEDO 7582</b> KNOWLEDGE DISCOVERY PROCESS FOR CHARACTERIZATION O F MATERIALS FAILURE MECHANISM 08/09/1996 - 05/31/1999 FY00: -\$43 Total: \$86,128 <i>Prin. Invest.:</i> K J CIOS <i>Tech. Officer:</i> GRC/G Y BAAKUNI CASE Category: 45 - ELECTRICAL ENGR
<b>NCC 3 703 UNIVERSITY OF DAYTON 7555</b> INFRARED AVIONICS SIGNAL DISTRIBUTION INFRARED AVIONICS SIGNAL DISTRIBUTION 04/23/1999 - 10/07/1999 FY00: -\$116 Total: \$46,570 <i>Prin. Invest.:</i> M ATIQUZZAMAN <i>Tech. Officer:</i> GRC/H NGUYEN CASE Category: 45 - ELECTRICAL ENGR	<b>NAG 3 1967 UNIVERSITY OF TOLEDO 7563</b> BANDGAP ENGINEERING AND CIRCUIT DESIGN FOR LOW TEM PERATURE SPACE-BORNE POWER ELECTRONICS 09/07/1996 - 12/31/1999 FY00: \$0 Total: \$105,386 <i>Prin. Invest.:</i> Y J KAPOOR, M A SMITH <i>Tech. Officer:</i> GRC/R L PATTERSON, GRC/J E DICKMAN CASE Category: 45 - ELECTRICAL ENGR
<b>NCC 3 737 UNIVERSITY OF DAYTON 7556</b> DESIGN AND DEVELOPMENT OF A NARROW-BAND FERROELECT RIC TUNABLE PRE-SELECT FILTER FOR A FREQUENCY AGI 12/07/1999 - 03/21/2000 FY00: \$10,641 Total: \$10,641 <i>Prin. Invest.:</i> G SUBRAMANYAM <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> GRC/F MIRANDA CASE Category: 45 - ELECTRICAL ENGR	<b>NAG 3 2264 UNIVERSITY OF TOLEDO 7584</b> GEOMETRY INTEGRATION INTO NUMERICAL PROPULSION SY STEMS SIMULATION ARCHITECTURE 05/04/1999 - 04/26/2000 FY00: \$30,000 Total: \$80,000 <i>Prin. Invest.:</i> A A AFEH <i>Tech. Officer:</i> GRC/G J FOLLEN CASE Category: 41 - AERONAUTICAL ENGR
<b>NCC 3 771 UNIVERSITY OF DAYTON 7557</b> A FERROELECTRIC TUNABLE PRE-SELECT FILTER/LNA HYBR ID CIRCUIT WITH A VOLTAGE CONTROLLABLE IMPEDANCE 02/10/2000 - 11/08/2001 FY00: \$30,000 Total: \$30,000 <i>Prin. Invest.:</i> G SUBRAMANYAM <i>Tech. Officer:</i> GRC/F MIRANDA CASE Category: 45 - ELECTRICAL ENGR	<b>NAG 3 2269 UNIVERSITY OF TOLEDO 7585</b> DEVELOPMENT OF NOVEL METHODS FOR THE REDUCTION OF NOISE AND WEIGHT IN HELICOPTER TRANSMISSIONS 06/29/1999 - 12/31/2000 FY00: \$85,000 Total: \$115,062 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> GRC/T L KRANTZ CASE Category: 46 - MECHANICAL ENGR
<b>NCC 3 824 UNIVERSITY OF DAYTON 7558</b> INFRARED AVIONICS SIGNAL DISTRIBUTION: EXPERIMENT AL SETUP AND VERIFICATION 09/20/2000 - 01/31/2001 FY00: \$28,000 Total: \$28,000 <i>Prin. Invest.:</i> M ATIQUZZAMAN <i>Tech. Officer:</i> GRC/H NGUYEN CASE Category: 45 - ELECTRICAL ENGR	<b>NAG 3 2282 UNIVERSITY OF TOLEDO 7586</b> DATA MINING AND OPTIMIZATION TOOLS FOR DEVELOPING ENGINE PARAMETER MODELS 07/20/1999 - 07/01/2000 FY00: \$24,985 Total: \$55,985 <i>Prin. Invest.:</i> A P DHAWAN, NONE <i>Tech. Officer:</i> GRC/J LITT CASE Category: 29 - MATH/COMPUTER SCI, OTHER

## NASA'S UNIVERSITY PROGRAM

<b>NAG 3 2338</b> <b>UNIVERSITY OF TOLEDO</b> <b>7567</b> CHEMISTRY OF AVIATION FUELS CHEMISTRY OF AVIATION FUELS 02/23/2000 - 02/15/2001              FY00: \$133,000                      Total: \$133,000 <i>Prin. Invest.:</i> K L DEWITT <i>Tech. Officer:</i> GRC/M RABINOWITZ <i>CASE Category:</i> 43 - CHEMICAL ENGR	<b>NAG 5 4957</b> <b>UNIVERSITY OF TOLEDO</b> <b>7575</b> THE EVOLUTION OF INTERSTELLAR GAS - MASSIVE STARS 06/27/1997 - 06/30/2001              FY00: \$81,954                      Total: \$321,954 <i>Prin. Invest.:</i> S R FEDERMAN <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 3 2408</b> <b>UNIVERSITY OF TOLEDO</b> <b>7568</b> INVESTIGATION OF PRESSURIZED WAVE BEARING INVESTIGATION OF PRESSURIZED WAVE BEARING 05/01/2000 - 11/30/2000              FY00: \$35,025                      Total: \$35,025 <i>Prin. Invest.:</i> T G KEITH <i>Tech. Officer:</i> GRC/D P FLEMING <i>CASE Category:</i> 46 - MECHANICAL ENGR	<b>NAG 5 6624</b> <b>UNIVERSITY OF TOLEDO</b> <b>7578</b> MAPPING THE DIFFUSE GALACTIC LIGHT AND EXTENDED RED EMISSION WITH PIONEER10 AND 11 11/20/1997 - 12/31/2000              FY00: \$0                      Total: \$103,052 <i>Prin. Invest.:</i> A WITT <i>Tech. Officer:</i> GSFC/J LING <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 3 2409</b> <b>UNIVERSITY OF TOLEDO</b> <b>7569</b> DISSEMINATION OF REMOTE SENSING TECHNOLOGY IN NORTH WEST OHIO THROUGH EDUCATIONAL AND COMMUNITY OUTR 05/04/2000 - 04/30/2001              FY00: \$105,000                      Total: \$105,000 <i>Prin. Invest.:</i> D P CZAJKOWSKI <i>Tech. Officer:</i> GRC/T M SCOTT <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 7754</b> <b>UNIVERSITY OF TOLEDO</b> <b>7577</b> OSCILLATOR STRENGTHS FOR ULTRAVIOLET ATOMIC AND MOLECULAR TRANSITIONS 11/25/1998 - 12/31/2000              FY00: \$57,462                      Total: \$117,462 <i>Prin. Invest.:</i> S R FEDERMAN, NONE <i>Tech. Officer:</i> GSFC/H HASAN <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 4 168</b> <b>UNIVERSITY OF TOLEDO</b> <b>7570</b> MODAL FILTERING USING OPTIMAL WAVELET BASIS 05/26/1999 - 01/28/2000              FY00: -\$44                      Total: \$9,956 <i>Prin. Invest.:</i> J D JOHNSON <i>Tech. Officer:</i> DFRC/R LIND <i>CASE Category:</i> 41 - AERONAUTICAL ENGR	<b>NAG 5 8052</b> <b>UNIVERSITY OF TOLEDO</b> <b>7578</b> TERRESTRIAL ENVIRONMENT VARIABLES DERIVED FROM EOS PLATFORM SENSORS 01/15/1999 - 01/31/2001              FY00: \$84,839                      Total: \$113,774 <i>Prin. Invest.:</i> K P CZAJKOWSKI, NONE <i>Tech. Officer:</i> GSFC/D E WICKLAND <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 3248</b> <b>UNIVERSITY OF TOLEDO</b> <b>7571</b> THE EFFECT OF ROTATION ON STELLAR WINDS: ASYMMETRIES AND BIPOLAR STRUCTURES IN CIRCUMS 10/09/1996 - 08/31/2001              FY00: \$100,000                      Total: \$400,000 <i>Prin. Invest.:</i> J E BJORKMAN <i>Tech. Officer:</i> GSFC/D WEST <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8054</b> <b>UNIVERSITY OF TOLEDO</b> <b>7579</b> CIRCUMSTELLAR ENVIRONMENTS OF HIGH- AND INTERMEDIATE-MASS STARS: FROM THE PRE-MAIN-SEQUENCE TO LB 01/19/1999 - 01/14/2001              FY00: \$93,191                      Total: \$190,405 <i>Prin. Invest.:</i> K S BJORKMAN <i>Prin. Invest.:</i> NONE <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 3447</b> <b>UNIVERSITY OF TOLEDO</b> <b>7572</b> EFFECTS OF ROTATION AND REVISED IONIZATION BALANCE MASS-LOSS RATES FOR B STARS 10/10/1996 - 10/14/2000              FY00: \$0                      Total: \$150,000 <i>Prin. Invest.:</i> K BJORKMAN <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8183</b> <b>UNIVERSITY OF TOLEDO</b> <b>7580</b> DUST AND CONDENSATE CLOUDS IN THE MARTIAN POLAR REGIONS 02/16/1999 - 08/31/2001              FY00: \$59,000                      Total: \$119,600 <i>Prin. Invest.:</i> P B JAMES <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 3790</b> <b>UNIVERSITY OF TOLEDO</b> <b>7573</b> OPTICAL PROPERTIES OF CARBONACEOUS GRAIN MANTLE MATERIALS 03/10/1997 - 02/28/2001              FY00: \$0                      Total: \$186,169 <i>Prin. Invest.:</i> D N WITT <i>Tech. Officer:</i> GSFC/H HASAN <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8671</b> <b>UNIVERSITY OF TOLEDO</b> <b>7581</b> USE OF THERMAL INFRARED SATELLITE DATA IN CLIMATE CHANGE STUDIES 07/08/1999 - 07/14/2001              FY00: \$116,500                      Total: \$222,753 <i>Prin. Invest.:</i> K P CZAJKOWSKI <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 4338</b> <b>UNIVERSITY OF TOLEDO</b> <b>7574</b> NEAR-IR EMISSION AND ABSORPTION CHARACTERISTICS OF MANTLE MATERIALS 04/21/1997 - 03/31/2001              FY00: \$30,000                      Total: \$156,000 <i>Prin. Invest.:</i> D N WITT <i>Tech. Officer:</i> GSFC/H THRONSON <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8785</b> <b>UNIVERSITY OF TOLEDO</b> <b>7582</b> A NEW CLASS OF UNNATURAL FOLDING OLIGOMERS: HELICES WITH NANO-SIZED CAVITIES 08/26/1999 - 06/30/2000              FY00: \$55,745                      Total: \$133,245 <i>Prin. Invest.:</i> B GONG, NONE <i>Tech. Officer:</i> GSFC/R CROUCH <i>CASE Category:</i> 99 - MULTIDISCIPL, OTHER

<p><b>NAG 5 8794</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7583</b>  THE GEOMETRY AND EVOLUTION OF LOW-MASS STAR FORMATION (ATP 98)  09/07/1999 - 09/14/2000                      FY00: \$0                      Total: \$20,000  Prin. Invest.: J E BJORKMAN  Tech. Officer: GSFC/D K WEST  CASE Category: 11 - ASTRONOMY</p>	<p><b>NCC 3 513</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7591</b>  IMPROVED MODEL FOR THE OXIDATIVE PYROLYSIS OF HYDROCARBON FUELS  11/06/1996 - 03/31/2000                      FY00: \$68,095                      Total: \$370,903  Prin. Invest.: K J DEWITT  Tech. Officer: GRC/K P KUNDU  CASE Category: 12 - CHEMISTRY</p>
<p><b>NAG 5 8961</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7584</b>  MOLECULAR HYDROGEN EXCITATION IN PHOTODISSOCIATION REGIONS - FUSE  01/21/2000 - 01/31/2001                      FY00: \$74,200                      Total: \$74,200  Prin. Invest.: S R FEDERMAN  Tech. Officer: GSFC/G SONNEBORN  CASE Category: 11 - ASTRONOMY</p>	<p><b>NCC 3 523</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7592</b>  COMPUTATION OF REACTING FLOWS IN COMBUSTION PROCESSES USING UNSTRUCTURED GRIDS  12/26/1996 - 01/01/2000                      FY00: \$0                      Total: \$343,741  Prin. Invest.: T G KEITH  Tech. Officer: GRC/R STUBBS  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 5 8982</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7585</b>  DUST SCATTERING PROPERTIES IN REFLECTION NEBULAE - FUSE  01/24/2000 - 01/31/2001                      FY00: \$33,100                      Total: \$33,100  Prin. Invest.: A N WITT  Tech. Officer: GSFC/G SONNEBORN  CASE Category: 11 - ASTRONOMY</p>	<p><b>NCC 3 524</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7593</b>  COMPUTATIONAL SIMULATION OF COMPOSITE BEHAVIOR  12/26/1996 - 11/09/2000                      FY00: \$121,312                      Total: \$447,240  Prin. Invest.: T G KEITH  Tech. Officer: GRC/P MURTHY  CASE Category: 49 - ENGINEERING, OTHER</p>
<p><b>NAG 5 9202</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7586</b>  MOVING BEYOND THE STANDARD PARADIGM: THE IMPORTANCE OF INTERSTELLAR DUST FROM THE MILKY WAY TO HIGH  03/14/2000 - 03/14/2001                      FY00: \$32,164                      Total: \$32,164  Prin. Invest.: A WITT  Tech. Officer: GSFC/R OLIVERSEN  CASE Category: 11 - ASTRONOMY</p>	<p><b>NCC 3 527</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7594</b>  AEROELASTIC ANALYSIS FOR AEROPROPULSION APPLICATIONS  12/26/1996 - 12/13/2000                      FY00: \$0                      Total: \$234,068  Prin. Invest.: T G KEITH, JR.  Tech. Officer: GRC/O MEHMED, GRC/G L STEFKO  CASE Category: 46 - MECHANICAL ENGR</p>
<p><b>NAG 5 9376</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7587</b>  INTERSTELLAR DUST IN GALAXIES (LTSA - 99)  04/11/2000 - 04/14/2001                      FY00: \$92,368                      Total: \$92,368  Prin. Invest.: A N WITT  Tech. Officer: GSFC/R J OLIVERSEN  CASE Category: 11 - ASTRONOMY</p>	<p><b>NCC 3 596</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7595</b>  APPLICATION OF AEROELASTIC SOLVERS BASED ON NAVIER-STOKES EQUATIONS  01/14/1998 - 06/30/2000                      FY00: \$0                      Total: \$205,706  Prin. Invest.: T G KEITH  Tech. Officer: GRC/D JANETZKE  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 8 1380</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7588</b>  FOR RESEARCH ENTITLED "SEARCHING FOR THE BEST PROTEIN CRYSTALS"  06/19/1997 - 12/30/2001                      FY00: \$166,600                      Total: \$488,600  Prin. Invest.: G BORGOTAH  Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO  CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>	<p><b>NCC 3 604</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7596</b>  DEVELOPMENT OF AN AEROELASTIC ANALYSIS INCLUDING A VISCOUS FLOW MODEL  03/27/1998 - 04/30/2000                      FY00: \$0                      Total: \$164,679  Prin. Invest.: J G KEITH  Tech. Officer: GRC/A P KURKOR  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 8 1578</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7589</b>  INFLUENCE OF IMPURITIES ON PROTEIN CRYSTAL GROWTH  01/28/1999 - 11/30/2002                      FY00: \$104,000                      Total: \$205,000  Prin. Invest.: C A SCHALL  Tech. Officer: MSFC/B GUYNES  CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>	<p><b>NCC 3 605</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7597</b>  AEROELASTIC STABILITY AND RESPONSE OF ROTATING STRUCTURES  04/03/1998 - 11/06/2000                      FY00: \$114,955                      Total: \$323,759  Prin. Invest.: T KEITH  Tech. Officer: GRC/O MEHMED  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NCC 2 5215</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7590</b>  EVALUATION OF CATALYTIC WET OXIDATION FOR THE ULTIMATE CONVERSION OF SOLID WASTES  05/13/1997 - 06/30/1999                      FY00: \$0                      Total: \$40,000  Prin. Invest.: M ABRAHAM  Tech. Officer: ARC/J FISHER  CASE Category: 43 - CHEMICAL ENGR</p>	<p><b>NCC 3 616</b>                      <b>UNIVERSITY OF TOLEDO</b>                      <b>7598</b>  STUDY OF WAVE JOURNAL BEARINGS WITH LIQUID LUBRICANTS  05/18/1998 - 05/21/1999                      FY00: \$0                      Total: \$114,812  Prin. Invest.: T G KEITH, F DIMOFTE  Tech. Officer: GRC/M P PROCTOR  CASE Category: 46 - MECHANICAL ENGR</p>

**NCC 3 639 UNIVERSITY OF TOLEDO 7599**  
 EXPERIMENTAL & ANALYTICAL INVESTIGATION OF SOLID-LU BRICATED  
 BACKUP BEARINGS  
 07/28/1998 - 07/07/1999 FY00: -\$1,220 Total: \$13,780  
 Prin. Invest.: T G KEITH  
 Tech. Officer: GRC/R L FUSARO  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 717 UNIVERSITY OF TOLEDO 7600**  
 MULTI-STAGE AEROELASTIC ANALYSIS FOR PROPULSION MULTI-STAGE  
 AEROELASTIC ANALYSIS FOR PROPULSION  
 06/29/1999 - 01/09/2001 FY00: \$49,000 Total: \$82,730  
 Prin. Invest.: T G KEITH, JR.  
 Tech. Officer: GRC/O MEHMED  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 3 719 UNIVERSITY OF TOLEDO 7601**  
 CENTRIFUGAL COMPRESSOR AEROELASTIC ANALYSIS CODEE  
 CENTRIFUGAL COMPRESSOR AEROELASTIC ANALYSIS CODEE  
 06/24/1999 - 12/16/2000 FY00: \$85,000 Total: \$118,730  
 Prin. Invest.: T G KEITH  
 Tech. Officer: GRC/D C JANETZKE  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 774 UNIVERSITY OF TOLEDO 7602**  
 ACTIVE CONTROL ANALYSIS FOR AEROELASTIC INSTABILITIES IN TURBO-  
 MACHINES  
 02/14/2000 - 02/09/2001 FY00: \$33,458 Total: \$33,458  
 Prin. Invest.: T KEITH  
 Tech. Officer: GRC/D JANETZKE  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 8 134 UNIVERSITY OF TOLEDO 7603**  
 INVESTIGATION OF THE GROWTH MECHANISM OF TETRAGONAL LYSO-  
 ZYME CRYSTALS  
 03/13/1997 - 03/13/2000 FY00: \$0 Total: \$258,538  
 Prin. Invest.: A NADARAJAH  
 Tech. Officer: MSFC/M L PUSEY  
 CASE Category: 12 - CHEMISTRY

**NCC 8 196 UNIVERSITY OF TOLEDO 7604**  
 USE OF FLUORESCENCE SPECTROSCOPY AND X-RAY DIFFRACTION IN  
 INVEST. OF PROTEIN CRYSTAL GROWTH  
 11/17/1999 - 11/11/2000 FY00: \$55,000 Total: \$55,000  
 Prin. Invest.: A NADARAJAH  
 Tech. Officer: MSFC/M PUSEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NGT 3 52342 UNIVERSITY OF TOLEDO 7605**  
 MICROMACHINED CANTILEVERED TRANSMISSION LINE SWITCHES FOR  
 MICROWAVE APPLICATIONS  
 07/18/1998 - 05/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: D J KAPOOR  
 Tech. Officer: GRC/D MONTAGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2301 WILBERFORCE UNIVERSITY 7606**  
 STUDENT OUTREACH WITH RENEWABLE ENERGY TECHNOLOGY (SORET)  
 CONSORTIUM  
 11/05/1999 - 10/28/2001 FY00: \$299,958 Total: \$299,958  
 Prin. Invest.: D R BUFFINGER  
 Tech. Officer: GRC/A F HEPP  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 535 WILBERFORCE UNIVERSITY 7607**  
 WILBERFORCE POWER TECHNOLOGY IN EDUCATION PROGRAM  
 01/27/1997 - 12/06/1999 FY00: \$0 Total: \$315,000  
 Prin. Invest.: H C SMITHERMAN  
 Tech. Officer: GRC/A F HEPP  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 2 1237 WRIGHT STATE UNIVERSITY 7608**  
 ROLES FOR TECHNOLOGY IN THE FACILITATION OF DISTRIBUTED WORK  
 IN COMPLEX DYNAMIC DOMAINS  
 07/16/1998 - 07/31/2000 FY00: \$47,482 Total: \$142,295  
 Prin. Invest.: V L SHALIN  
 Tech. Officer: ARC/W J CLANCEY  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 4188 WRIGHT STATE UNIVERSITY 7609**  
 MODEL STUDIES OF EXCITED STATES OF N<sub>2</sub> AND N<sub>2</sub><sup>+</sup> IN THE IONOSPHERE  
 03/27/1997 - 03/31/2001 FY00: \$72,886 Total: \$209,608  
 Prin. Invest.: D L FOX  
 Tech. Officer: GSFC/M M MELLOTT, SR  
 CASE Category: 13 - PHYSICS

**NCC 2 1203 WRIGHT STATE UNIVERSITY 7610**  
 ROLES FOR TECHNOLOGY IN THE FACILITATION OF DISTRIBUTED WORK  
 IN COMPLEX DYNAMIC DOMAINS  
 09/15/2000 - 09/14/2001 FY00: \$88,029 Total: \$88,029  
 Prin. Invest.: V L SHALIN  
 Tech. Officer: ARC/W J CLANCEY  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 30091 WRIGHT STATE UNIVERSITY 7611**  
 AEROSPACE MEDICINE TRAINING PROGRAM  
 09/11/1997 - 12/30/2000 FY00: \$412,000 Total: \$1,868,212  
 Prin. Invest.: S R MOHLER  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NGT 5 50213 WRIGHT STATE UNIVERSITY 7612**  
 THREE-DIMENSIONAL AUDIO PRESENTATION SYSTEM EFFECTIVENESS  
 IN HYPERGRAVITY AND HYPOGRAVITY  
 07/22/1998 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: R H GILKEY Prin. Invest.: NONE  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 69 - PSYCHOLOGY, OTHER

## OKLAHOMA

**NAG 3 1852 OKLAHOMA STATE UNIVERSITY 7613**  
 STUDIES OF PARTICLES SEDIMENTATION BY NOVEL SCATTERING TECH-  
 NIQUE  
 05/01/1996 - 04/30/2001 FY00: \$94,000 Total: \$399,992  
 Prin. Invest.: O TONG, B ACKERSON  
 Tech. Officer: GRC/B SINGH  
 CASE Category: 13 - PHYSICS

**NAG 4 176 OKLAHOMA STATE UNIVERSITY 7614**  
 CFD AEROSERVOELASTIC & FLIGHT DYNAMICS ANALYSIS  
 09/16/1999 - 09/16/2000 FY00: \$36,852 Total: \$55,607  
 Prin. Invest.: A ARENA, JR.  
 Tech. Officer: DFRC/K GUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

<p><b>NAG 5 7451 OKLAHOMA STATE UNIVERSITY 7615</b>            TERRESTRIAL ENVIRONMENTAL VARIABLES DERIVED FROM E OS PLAT-            FORM SENSORS            07/09/1998 - 07/31/2001 FY00: \$16,800 Total: \$47,226  <i>Prin. Invest.:</i> S J STADLER  <i>Tech. Officer:</i> GSFC/D E WICKLAND            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 2 1427 UNIVERSITY OF OKLAHOMA - NORMAN 7623</b>            EFFECT OF HYPERGRAVITY, VIBRATION, &amp; RADIATION ON GENETIC &amp;            DEVELOPMENTAL STABILITY IN DROSOPHILA..            08/03/2000 - 07/31/2001 FY00: \$266,751 Total: \$266,751  <i>Prin. Invest.:</i> J T THOMPSON, JR  <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY            CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p><b>NAG 9 1159 OKLAHOMA STATE UNIVERSITY 7616</b>            ROLE OF VITAMIN E IN PREVENTING BOND DAMAGE            09/29/1999 - 06/30/2001 FY00: \$171,885 Total: \$206,262  <i>Prin. Invest.:</i> B J STOECKER  <i>Tech. Officer:</i> JSC/C W LLOYD            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 3 2388 UNIVERSITY OF OKLAHOMA - NORMAN 7624</b>            GRAVITATIONAL EFFECTS ON FLOW INSTABILITY AND TRAN SITION IN LOW            DENSITY JETS            04/10/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  <i>Prin. Invest.:</i> A K AGRAWAL  <i>Tech. Officer:</i> GRC/F P CHIARAMONTE            CASE Category: 49 - ENGINEERING, OTHER</p>
<p><b>NASW 5043 OKLAHOMA STATE UNIVERSITY 7617</b>            OPERATION OF AEROSPACE EDUCATION SERVICES PROGRAM            09/25/1995 - 11/30/2000 FY00: \$6,470,153 Total: \$32,109,575  <i>Prin. Invest.:</i> K WIGGINS  <i>Tech. Officer:</i> HQ/L BILBROUGH            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 5 3505 UNIVERSITY OF OKLAHOMA - NORMAN 7625</b>            MULTIWAVELENGTH STUDIES OF SUPERNOVAE            11/25/1996 - 09/30/2001 FY00: \$50,000 Total: \$250,000  <i>Prin. Invest.:</i> E A BARON  <i>Tech. Officer:</i> GSFC/D K WEST            CASE Category: 11 - ASTRONOMY</p>
<p><b>NCC 5 185 OKLAHOMA STATE UNIVERSITY 7618</b>            TEACHING FROM SPACE PROGRAM            04/03/1997 - 11/30/2000 FY00: \$835,880 Total: \$3,128,995  <i>Prin. Invest.:</i> K E WIGGINS  <i>Tech. Officer:</i> GSFC/P L MOUNTJOY            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 5 6717 UNIVERSITY OF OKLAHOMA - NORMAN 7626</b>            CENTER OF EXCELLENCE IN APPLICATION OF REMOTE SENS ING TO            REGIONAL AND GLOBAL INTEGRATED ENVIRONME            12/10/1997 - 12/15/1999 FY00: \$0 Total: \$338,661  <i>Prin. Invest.:</i> T WILLIAMS  <i>Tech. Officer:</i> GSFC/M Y WEI            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NGT 4 52412 OKLAHOMA STATE UNIVERSITY 7619</b>            AEROSEROELASTIC AND FLIGHT DYNAMICS            05/12/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  <i>Prin. Invest.:</i> A ARENA  <i>Tech. Officer:</i> DFRC/K GUPTA            CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 9165 UNIVERSITY OF OKLAHOMA - NORMAN 7627</b>            COMPREHENSIVE SUPERNOVA SPECTROSCOPY - ADP - 99            03/31/2000 - 03/31/2001 FY00: \$50,000 Total: \$50,000  <i>Prin. Invest.:</i> D BRANCH  <i>Tech. Officer:</i> GSFC/R J OLIVERSEN            CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 6231 ORAL ROBERTS UNIVERSITY 7620</b>            THE DEVELOPMENT OF AN EXPERIMENTAL APPARATUS TO TES SPINNING            SPACECRAFT UNDER THRUST.            08/19/1997 - 07/31/1999 FY00: \$0 Total: \$27,000  <i>Prin. Invest.:</i> T H STENGLE  <i>Tech. Officer:</i> GSFC/T H STENGLE            CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 5 9745 UNIVERSITY OF OKLAHOMA - NORMAN 7628</b>            X-RAY SPECTRAL &amp; VARIABILITY STUDIES OF AGN ADP 99            06/29/2000 - 08/14/2001 FY00: \$50,440 Total: \$50,440  <i>Prin. Invest.:</i> K M LEIGHLY  <i>Tech. Officer:</i> GSFC/R J OLIVERSEN            CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 7378 ORAL ROBERTS UNIVERSITY 7621</b>            EXPERIMENTAL APPARATUS TO TEST THE STABILITY OF SP INNING            SPACECRAFT UNDER THRUST            05/06/1998 - 05/14/2001 FY00: \$0 Total: \$48,000  <i>Prin. Invest.:</i> D HALSMER  <i>Tech. Officer:</i> GSFC/R HARMAN            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 5 9991 UNIVERSITY OF OKLAHOMA - NORMAN 7629</b>            NGC 6300: A NEW, BRIGHT, COMPTON-THICK SEYFERT 2 GALAXY            09/14/2000 - 08/31/2001 FY00: \$13,000 Total: \$13,000  <i>Prin. Invest.:</i> K M LEIGHLY  <i>Tech. Officer:</i> GSFC/R MUSHOTZKY            CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 1 2178 UNIVERSITY OF OKLAHOMA - NORMAN 7622</b>            A STUDY ON EMBEDDED HIGH-SPEED WIRELESS TELEMETRY SYSTEMS            FOR WIND TUNNEL APPLICATIONS, PHASE II            03/31/1999 - 12/31/2000 FY00: \$119,826 Total: \$221,218  <i>Prin. Invest.:</i> J R CRUZ  <i>Tech. Officer:</i> LARC/S K KAHNG            CASE Category: 45 - ELECTRICAL ENGR</p>	<p><b>NAG 8 1271 UNIVERSITY OF OKLAHOMA - NORMAN 7630</b>            MICROGRAVITY IMPREPNATION OF FIBER PREFORMS            05/02/1996 - 05/15/2000 FY00: \$50,000 Total: \$400,000  <i>Prin. Invest.:</i> M C ALTAN, B GRADY, F C LAI  <i>Tech. Officer:</i> MSFC/D R WOODARD, MSFC/R W ALLEN            CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>

**NAS 3 26957 UNIVERSITY OF OKLAHOMA - NORMAN 7631**  
 ACTS PROPAGATION EXPERIMENTS  
 05/13/1993 - 03/31/2000 FY00: \$0 Total: \$527,192  
 Prin. Invest.: R K CRANE  
 Tech. Officer: GRC/R J GUNDERMAN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5382 UNIVERSITY OF OKLAHOMA - NORMAN 7632**  
 MINERALS & SUBMICROMETER FORMS AS BIOSIGNATURES  
 05/16/2000 - 04/14/2001 FY00: \$5,393 Total: \$5,393  
 Prin. Invest.: R D ELMORE  
 Tech. Officer: ARC/D BLAKE  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 3 787 UNIVERSITY OF OKLAHOMA - NORMAN 7633**  
 INSTABILITY AND BREAKUP OF GAS JETS INJECTED IN CO FLOWING LIQUIDS  
 03/28/2000 - 11/30/2003 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: D N PARTHASAEATHY  
 Tech. Officer: GRC/J B MCQUILLEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 3 791 UNIVERSITY OF OKLAHOMA - NORMAN 7634**  
 ENHANCEMENT OF MICROGRAVITY FIBER IMPREGNATION USING ELECTROHYDYNAMIC INDUCTION PUMPING  
 04/11/2000 - 11/30/2000 FY00: \$44,997 Total: \$44,997  
 Prin. Invest.: D C LAI  
 Tech. Officer: GRC/H C DEGROH  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 5 171 UNIVERSITY OF OKLAHOMA - NORMAN 7635**  
 TO SUPPORT RESEARCH UNDER THE EXPERIMENTAL PROGRAM COMPETITIVE RESEARCH  
 12/16/1996 - 11/14/2000 FY00: \$500,000 Total: \$2,000,000  
 Prin. Invest.: S DUCA  
 Tech. Officer: GSFC/J DASCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 398 UNIVERSITY OF OKLAHOMA - NORMAN 7636**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/14/1999 - 04/30/2001 FY00: \$225,000 Total: \$448,800  
 Prin. Invest.: V DUC-SNOWDEN  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30151 UNIVERSITY OF OKLAHOMA - NORMAN 7637**  
 INVESTIGATION OF LAND-ATMOSPHERE INTERACTIONS USING THE OKLAHOMAMESONET/NASA EARTH SCIENCE  
 08/01/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: K CRAWFORD  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40013 UNIVERSITY OF OKLAHOMA - NORMAN 7638**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE AND FELLOWSHIP PROGRAM.  
 01/30/1997 - 02/28/2001 FY00: \$212,500 Total: \$807,500  
 Prin. Invest.: V DUCA  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## OREGON

**NAG 2 1268 OREGON GRADUATE INST OF SCI & TECH 7639**  
 VLSI NEUROTECHNOLOGY: MASSIVELY PARALLEL COMPUTING FOR AUTONOMOUS INTELLIGENCE  
 09/16/1998 - 02/29/2000 FY00: \$0 Total: \$53,276  
 Prin. Invest.: D HAMMERSTROM  
 Tech. Officer: ARC/W F BROOKS, ARC/C C JORGENSEN  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 811 OREGON GRADUATE INST OF SCIE & TECH 7640**  
 PERCEPTION-BASED SENSOR FUSION FOR AN AUGMENTED VISION SYSTEM  
 07/16/1993 - 08/31/1999 FY00: \$0 Total: \$676,674  
 Prin. Invest.: M PAVEL  
 Tech. Officer: ARC/A J AHUMADA, ARC/C H NULL  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 2 1190 OREGON GRADUATE INST OF SCI & TECH 7641**  
 IMPLEMENTATION OF SENSOR FUSION ALGORITHMS IN MATLAB  
 07/25/2000 - 10/31/2000 FY00: \$33,705 Total: \$33,705  
 Prin. Invest.: M PAVEL  
 Tech. Officer: ARC/A J AHUMADA  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 2 1199 OREGON HEALTH SCIENCES UNIVERSITY 7642**  
 HOW DO CELL DIVISION PLANCES SPECIFY REGIONAL GENE EXPRESSION PATTERNS IN EARLY EMBRYOS?  
 04/02/1998 - 04/30/2001 FY00: \$259,543 Total: \$490,495  
 Prin. Invest.: M V DANILCHIK  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 7869 OREGON HEALTH SCIENCES UNIVERSITY 7643**  
 HUMAN POSTURAL CONTROL DYNAMICS  
 01/25/1999 - 12/31/1999 FY00: \$0 Total: \$136,500  
 Prin. Invest.: R PETERKA  
 Tech. Officer: GSFC/V SCHNEIDER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1123 OREGON STATE UNIVERSITY 7644**  
 ESTABLISHING STANDARDS FOR HPC SYSTEMS SOFTWARE & TOOLS  
 03/14/1997 - 08/31/1999 FY00: -\$1 Total: \$39,999  
 Prin. Invest.: C M PANCAKE  
 Tech. Officer: ARC/C H SCHULBACH, ARC/W J FEIEREISEN  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1287 OREGON STATE UNIVERSITY 7645**  
 TRAINING PILOTS TO PRIORITIZE TASKS  
 02/01/1999 - 02/14/2001 FY00: \$34,590 Total: \$119,277  
 Prin. Invest.: K H FUNK  
 Tech. Officer: ARC/R K DISMUKES  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1341 OREGON STATE UNIVERSITY 7646**  
 INTERACTIONS BETWEEN GRAVITY & LIGHT IN DETERMINING PLANT FORM ANALYSIS USING THE LAXY-2 MUTANT TOMA  
 07/21/1999 - 12/31/2000 FY00: \$168,306 Total: \$250,511  
 Prin. Invest.: T L LOMAX  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 2463 OREGON STATE UNIVERSITY 7647**  
 DEVELOPMENT AND EVALUATION OF HIGH TEMPERATURE AND SPECIAL-  
 IZED FIBER BRAGG GRATINGS  
 06/15/2000 - 09/30/2000 FY00: \$17,997 Total: \$17,997  
 Prin. Invest.: T K PLANT  
 Tech. Officer: GRC/G ADAMOVSKY  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 4542 OREGON STATE UNIVERSITY 7648**  
 40 AR/39 AR INCREMENTAL HEATING AGES OF SUBMILLIGR IMPACT MELT  
 ROCKS USING A CONTINUOUS LASER SYSTEM  
 05/06/1997 - 05/31/2000 FY00: \$0 Total: \$74,437  
 Prin. Invest.: D DALRYMPLE  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4947 OREGON STATE UNIVERSITY 7649**  
 "COUPLED ATMOSPHERE/OCEAN PROCESSES & PRIMARY PROD IN THE  
 SOUTHERN OCEAN"  
 06/23/1997 - 06/30/2001 FY00: \$825,000 Total: \$2,888,000  
 Prin. Invest.: M R ABBOTT  
 Tech. Officer: GSFC/J A YODER  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 6156 OREGON STATE UNIVERSITY 7650**  
 EFFECT OF OCEAN TIDES ON THE LONG TERM ORBITAL AND OF THE  
 EARTH-MOON SYSTEM  
 09/11/1997 - 09/14/2000 FY00: \$0 Total: \$60,000  
 Prin. Invest.: G D EGBERT, NONE  
 Tech. Officer: GSFC/B BILLS  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6189 OREGON STATE UNIVERSITY 7651**  
 WAVES AND INSTABILITY IN THE ATMOSPHERE OF MARS  
 02/04/1998 - 06/30/2001 FY00: \$0 Total: \$250,105  
 Prin. Invest.: D BARNES  
 Tech. Officer: GSFC/J BERGSTRAHL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6242 OREGON STATE UNIVERSITY 7652**  
 MODELING CARBON DYNAMICS AND THEIR ECONOMIC IMPLIC REGIONS:  
 PACIFIC NORTHWESTERN USA AND NORTHWESTER  
 08/19/1997 - 08/31/2001 FY00: \$68,750 Total: \$580,000  
 Prin. Invest.: D E HARMON  
 Tech. Officer: GSFC/G C GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6354 OREGON STATE UNIVERSITY 7653**  
 OBSERVATIONS AND MODELING OF THE TRANSIENT GENERAL PACIFIC  
 OCEAN  
 09/26/1997 - 08/31/2000 FY00: \$0 Total: \$238,473  
 Prin. Invest.: D B CHELTON  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6373 OREGON STATE UNIVERSITY 7654**  
 GRAVITROPIC SIGNAL TRANSDUCTION IN THE LAZY-2 TOMATO MUTANT  
 10/03/1997 - 06/30/2000 FY00: \$0 Total: \$236,085  
 Prin. Invest.: D LOMAX  
 Tech. Officer: GSFC/T SCOTT  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 6530 OREGON STATE UNIVERSITY 7655**  
 THE IMPROVED ALGORITHM FOR ESTIMATING THE ATMOSPHE RIC  
 EFFECT IN SPACE MEASUREMENTS OF THE MARINE  
 12/09/1997 - 10/31/2000 FY00: \$131,757 Total: \$387,677  
 Prin. Invest.: K SHIFRIN  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6642 OREGON STATE UNIVERSITY 7656**  
 COMPREHENSIVE VALIDATION OF SATELLITE OCEAN WINDS: ADVANCED  
 TECHNIQUES AND MULTI-INSTRUMENT ANALYS  
 11/20/1997 - 10/31/2000 FY00: \$195,000 Total: \$585,985  
 Prin. Invest.: D FREILICH  
 Tech. Officer: GSFC/J C DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6647 OREGON STATE UNIVERSITY 7657**  
 RELATIONSHIPS BETWEEN THE INHERENT OPTICAL PROPERT IES  
 (IOP), BIOGEOCHEMICAL PARAMETERS A  
 12/04/1997 - 11/30/2000 FY00: \$90,680 Total: \$271,348  
 Prin. Invest.: J R ZANEVELD  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7416 OREGON STATE UNIVERSITY 7658**  
 SPATIALLY-AVERAGED FLUXES OF CO2, HEAT AND MOISTUR E  
 05/21/1998 - 12/31/2000 FY00: \$21,101 Total: \$126,866  
 Prin. Invest.: L MAHRT  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7506 OREGON STATE UNIVERSITY 7659**  
 ASSESSING POTENTIAL AND ACTUAL FOREST PRODUCTIVITY ACROSS  
 SOUTHWESTERN OREGON WITH TWO SIMULATION  
 06/26/1998 - 06/30/2001 FY00: \$74,313 Total: \$232,343  
 Prin. Invest.: R H WARING  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7531 OREGON STATE UNIVERSITY 7660**  
 EVALUATING MODEL PREDICTIONS OF CO2 AND WATER VAPO R  
 EXCHANGE WITHFLUX MEASUREMENTSIN A POND  
 06/11/1998 - 06/30/2001 FY00: \$218,797 Total: \$537,385  
 Prin. Invest.: M H UNSWORTH  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7551 OREGON STATE UNIVERSITY 7661**  
 REDUCING UNCERTAINTY IN CARBON AND ENERGY EXCHANGE OVER  
 PINE FORESTS: INFLUENCE OF AGE,MANAGEMEN  
 06/22/1998 - 06/30/2001 FY00: \$241,882 Total: \$734,752  
 Prin. Invest.: B LAW  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7686 OREGON STATE UNIVERSITY 7662**  
 LIMITS TO CLOUD SUSCEPTIBILITY.  
 09/15/1998 - 09/30/2000 FY00: \$98,000 Total: \$198,000  
 Prin. Invest.: J A COAKLEY, JR.  
 Tech. Officer: GSFC/M I MISHCHENKO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE



**NAG 5 7694 OREGON STATE UNIVERSITY 7663**  
 EXPERIMENTAL & THEORETICAL STUDIES OF ORGANIC SYNTHESIS AND  
 ALTERATION AT HYDROTHERMAL CONDITIONS  
 09/23/1998 - 08/31/1999 FY00: \$0 Total: \$80,000  
 Prin. Invest.: B T SIMONEIT  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7856 OREGON STATE UNIVERSITY 7664**  
 BIGFOOT--CHARACTERIZING LAND COVER, LAI, AND NPP AT THE LAND-  
 SCALE SCALE FOR EOS/MODIS VALIDATION  
 12/14/1998 - 11/30/2000 FY00: \$220,726 Total: \$472,949  
 Prin. Invest.: W B COHEN  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8160 OREGON STATE UNIVERSITY 7665**  
 1999 SUMMER SCHOOL ON INVERSE METHODS & DATA ASSIMILATION  
 02/05/1999 - 01/31/2000 FY00: \$0 Total: \$15,000  
 Prin. Invest.: A F BENNETT  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8182 OREGON STATE UNIVERSITY 7666**  
 INVESTIGATION OF ATMOSPHERIC DIURNAL VARIATIONS IN SUMMER WITH  
 A MARS MESOSCALE MODEL  
 02/16/1999 - 03/31/2000 FY00: \$0 Total: \$48,100  
 Prin. Invest.: J R BARNES  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8261 OREGON STATE UNIVERSITY 7667**  
 CONSTRUCTION TO COMPLETE THE ENVIRONMENTAL COMPUTING  
 CENTER  
 02/17/1999 - 01/31/2001 FY00: \$0 Total: \$2,000,000  
 Prin. Invest.: G DALRYMPLE  
 Tech. Officer: GSFC/R A SCHIFFER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8315 OREGON STATE UNIVERSITY 7668**  
 INTEGRATING MICROWAVE AND HYPERSPECTRAL REMOTE SENSING FOR  
 ESTIMATING VEGETATION STRUCTURE AND BIOMASS  
 03/24/1999 - 02/28/2001 FY00: \$35,102 Total: \$72,164  
 Prin. Invest.: B E LAW  
 Tech. Officer: HQ/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8400 OREGON STATE UNIVERSITY 7669**  
 USING DISTRIBUTED OBJECT-BASED FRAMEWORKS TO SUPPORT EOS  
 DATA ACCESS AND VISUALIZATION  
 05/20/1999 - 05/31/2001 FY00: \$85,000 Total: \$127,000  
 Prin. Invest.: M S ABBOTT  
 Tech. Officer: GSFC/K MOE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 8520 OREGON STATE UNIVERSITY 7670**  
 ANALYSIS OF RADARSAT'S C-BAND SYNTHETIC APERTURE RADAR (SAR)  
 DATA FOR IDENTIFICATION OF PBL ROLL S  
 06/24/1999 - 05/31/2000 FY00: \$0 Total: \$98,554  
 Prin. Invest.: G LEVY  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8601 OREGON STATE UNIVERSITY 7671**  
 SPATIAL VARIATION OF SURFACE MOISTURE FLUXES IN SPG  
 06/17/1999 - 06/14/2001 FY00: \$59,289 Total: \$99,786  
 Prin. Invest.: L MAHRT  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8732 OREGON STATE UNIVERSITY 7672**  
 USE OF LIDAR SIGNALS TO STUDY BIOLOGICAL AND PHYSICAL OCEAN-  
 OGRAPHIC FEATURES  
 08/20/1999 - 08/14/2000 FY00: \$0 Total: \$36,050  
 Prin. Invest.: E BOSS  
 Tech. Officer: GSFC/C KOBLINSKY  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 8969 OREGON STATE UNIVERSITY 7673**  
 EOS TERRA DIRECT BROADCAST RECEIVING STATION: SUPPORT FOR  
 OCEAN & TERRESTRIAL ECOLOGY  
 01/24/2000 - 12/31/2000 FY00: \$550,000 Total: \$550,000  
 Prin. Invest.: M R ABBOTT  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9159 OREGON STATE UNIVERSITY 7674**  
 JASON-1 INVESTIGATION: ALTIMETRIC STUDIES OF OCEAN TIDAL  
 DYNAMICS  
 03/06/2000 - 03/31/2001 FY00: \$52,000 Total: \$52,000  
 Prin. Invest.: G D EGBERT  
 Tech. Officer: GSFC/R RAY  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 9428 OREGON STATE UNIVERSITY 7675**  
 SYNTHESIS & ALTERATION OF HIGHER MOLECULAR WEIGHT ORGANIC  
 COMPOUNDS UNDER HYDROTHERMAL CONDITIONS  
 04/11/2000 - 04/14/2003 FY00: \$94,200 Total: \$94,200  
 Prin. Invest.: B T SIMONEIT  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9446 OREGON STATE UNIVERSITY 7676**  
 MICROBES IN SILICATE ROCKS ON EARTH: ANALOGUES OF EXTANT &  
 FOSSIL MICROBIAL HABITATS ON OTHER  
 04/13/2000 - 04/14/2001 FY00: \$48,042 Total: \$48,042  
 Prin. Invest.: M FISK  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9677 OREGON STATE UNIVERSITY 7677**  
 SUPPORT FOR THE GOFB BOREAL FOREST WORKSHOP, NASA SIBERIAN  
 NETWORK, AND EWG BOREAL FOREST PROJECT  
 06/02/2000 - 10/31/2000 FY00: \$38,641 Total: \$38,641  
 Prin. Invest.: O N KRANKINA  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9771 OREGON STATE UNIVERSITY 7678**  
 STUDIES OF MGS TES AND MPF MET DATA  
 06/29/2000 - 06/30/2001 FY00: \$59,600 Total: \$59,600  
 Prin. Invest.: J R BARNES  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAS 1 9952 OREGON STATE UNIVERSITY 7679**  
 SCIENCE SUPPORT TO THE LITE SCIENCE TEAM  
 05/14/1993 - 11/30/1999 FY00: \$0 Total: \$223,000  
*Prin. Invest.:* J A COAKLEY  
*Tech. Officer:* LARC/G L MADDREA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 1 98140 OREGON STATE UNIVERSITY 7680**  
 CHARACTERIZATION OF CLOUDS AND THE ANISOTROPY OF EMITTED AND REFLECTED RADIANCES  
 10/29/1998 - 10/28/2000 FY00: \$176,726 Total: \$348,409  
*Prin. Invest.:* J COAKLEY  
*Tech. Officer:* LARC/B A WIELICKI, LARC/R L HUFFMAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 1 99104 OREGON STATE UNIVERSITY 7681**  
 DETERMINATION OF THE INDIRECT RADIATIVE FORCING DUE TO AEROSOLS  
 05/17/1999 - 05/16/2001 FY00: \$5,100 Total: \$13,100  
*Prin. Invest.:* J M COAKLEY, JR.  
*Tech. Officer:* LARC/G GIBSON  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 31360 OREGON STATE UNIVERSITY 7682**  
 MODIS INVESTIGATION  
 12/30/1991 - 12/14/2001 FY00: \$582,000 Total: \$4,126,000  
*Prin. Invest.:* M R ABBOTT  
*Tech. Officer:* GSFC/H OSEROFF  
*CASE Category:* 33 - OCEANOGRAPHY

**NAS 5 32965 OREGON STATE UNIVERSITY 7683**  
 SEAWINDS PRINCIPAL INVESTIGATOR & SCIENCE TEAM ACTIVITIES  
 09/15/1995 - 12/31/2004 FY00: \$2,038,980 Total: \$5,296,130  
*Prin. Invest.:* D H FREILICH  
*Tech. Officer:* GSFC/C RABER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 97129 OREGON STATE UNIVERSITY 7684**  
 SIMBIOS DATA PRODUCT & ALGORITHM VALIDATION  
 08/18/1997 - 12/01/2000 FY00: \$0 Total: \$863,764  
*Prin. Invest.:* J R ZANEVELD  
*Tech. Officer:* GSFC/C MCCLAIN  
*CASE Category:* 33 - OCEANOGRAPHY

**NCC 2 1102 OREGON STATE UNIVERSITY 7685**  
 INVESTIGATION OF THE CIRCULATION OF THE MARTIAN ATMOSPHERE USING DYNAMICAL MODELS  
 04/01/1999 - 12/31/2000 FY00: \$16,474 Total: \$32,415  
*Prin. Invest.:* J R BARNES  
*Tech. Officer:* ARC/R M HABERLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 5222 OREGON STATE UNIVERSITY 7686**  
 USE OF MAPLE SEEDING CONOPY REFLECTANCE DATASET FOR VALIDATION OF SART/LEAFMOD RADIATIVE TRANSFER  
 06/20/1997 - 07/31/1999 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* B YODER  
*Tech. Officer:* ARC/D PETERSON  
*CASE Category:* 54 - ENVIRONMENTAL BIOLOGY

**NCC13 98004 OREGON STATE UNIVERSITY 7687**  
 AFFILIATED RESEARCH CENTER PROGRAM SAME  
 08/04/1998 - 09/30/2001 FY00: \$183,333 Total: \$383,333  
*Prin. Invest.:* D KIMERLING  
*Tech. Officer:* SSC/N SOVIK  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 2 52245 OREGON STATE UNIVERSITY 7688**  
 MESOSCALE MODEL OF THE MARTIAN ATMOSPHERE  
 08/11/1998 - 08/14/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* J R BARNES  
*Tech. Officer:* ARC/R M HABERLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 5 96 OREGON STATE UNIVERSITY 7689**  
 GLOBAL CLIMATE CHANGE EFFECTS ON CARBON SEQUESTRATION MEDIATED BY SOIL MICROORGANISMS  
 08/20/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* R P DICK, V GEWIN  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30064 OREGON STATE UNIVERSITY 7690**  
 PHYSICAL-BIOLOGICAL INTERACTIONS IN THE SOUTHERN OCEAN  
 09/10/1997 - 08/31/1999 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* M ABBOTT  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30181 OREGON STATE UNIVERSITY 7691**  
 FUNCTIONAL GROUPING OF PLANTS IN FLORIDA SCRUB HABITAT/STUDENT: TAMMY FOSTER  
 08/23/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* B BOND  
*Tech. Officer:* GSFC/M Y WEI  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30185 OREGON STATE UNIVERSITY 7692**  
 RIGHT WHALE ECOLOGY IN THE NORTHWEST ATLANTIC OCEAN/STUDENT: MARK BAUMGARTNER  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* B MATE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30214 OREGON STATE UNIVERSITY 7693**  
 COMBINING FIELD MEASUREMENTS AND SATELLITE IMAGERY WITH A PROBABILISTIC MODEL TO QUANTIFY UNCERTAINTY  
 08/24/1999 - 08/31/2001 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* W B COHEN  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30347 OREGON STATE UNIVERSITY 7694**  
 ASYSTEMATIC STUDY OF THE OPTICAL PROPERTIES OF NON SPHERICAL OCEANIC PARTICLES/STUDENT: SEAN HERRING  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* W PEGAU  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

## NASA'S UNIVERSITY PROGRAM

## PENNSYLVANIA

**NGT 5 40022 OREGON STATE UNIVERSITY 7695**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 02/13/1997 - 02/28/2001 FY00: \$256,250 Total: \$950,750  
 Prin. Invest.: A C KLEIN  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50080 OREGON STATE UNIVERSITY 7696**  
 EFFECTS OF RESISTANCE AND HIGH-IMPACT TRAINING ON STEM IN  
 PREMENOPAUSAL WOMEN  
 09/05/1997 - 08/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: C SNOW  
 Tech. Officer: GSFC/L CHAMBERS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50092 OREGON STATE UNIVERSITY 7697**  
 TYPE SIMILARITIES FOR ENABLING CODE REUSE IN VISUA  
 09/05/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: BURNETT  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9579 PORTLAND STATE UNIVERSITY 7698**  
 RECOGNIZING THE SIGNATURES OF HYPERTHERMOPHILIC BIOFILMS:  
 GEYSERITES, EPITHERMAL DEPOSITS & ANCI  
 05/10/2000 - 04/30/2001 FY00: \$69,940 Total: \$69,940  
 Prin. Invest.: S CADY  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1283 PORTLAND STATE UNIVERSITY 7699**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY00: \$0 Total: \$54,914  
 Prin. Invest.: A M FRASER  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 1152 PORTLAND STATE UNIVERSITY 7700**  
 AN EXPLORATORY STUDY TO CHARACTERIZE AND EVALUATE IV & V ROI  
 01/19/2000 - 01/14/2001 FY00: \$94,228 Total: \$94,228  
 Prin. Invest.: D M RAFFO  
 Tech. Officer: ARC/Y F SIAMAK  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2010 UNIVERSITY OF OREGON - EUGENE 7701**  
 ATMOSPHERIC AND SPECTROSCOPIC RESEARCH IN THE FAR INFRARED  
 02/23/1998 - 02/21/2001 FY00: \$12,000 Total: \$112,000  
 Prin. Invest.: K PARK  
 Tech. Officer: LARC/I G NOLT  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1173 UNIVERSITY OF OREGON - EUGENE 7702**  
 STUDIES OF BACTERIORHODOPSIN FOR OPTICAL DATA STORAGE  
 01/26/1998 - 11/30/1999 FY00: \$0 Total: \$100,000  
 Prin. Invest.: G W RAYFIELD  
 Tech. Officer: ARC/S LAU  
 CASE Category: 13 - PHYSICS

**NAG 3 1934 UNIVERSITY OF OREGON - EUGENE 7703**  
 NUCLEATION OF QUANTIZED VORTICES FROM ROTATING SUPERFLUID  
 DROPS  
 08/05/1996 - 01/01/2001 FY00: \$63,000 Total: \$239,000  
 Prin. Invest.: D J DONNELLY  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 5 6109 UNIVERSITY OF OREGON - EUGENE 7704**  
 THE FORMATION AND EVOLUTION OF LSB GALAXIES  
 07/24/1997 - 10/31/2000 FY00: \$74,273 Total: \$164,039  
 Prin. Invest.: D SCHOMBERT  
 Tech. Officer: GSFC/D GOLOBEK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8505 UNIVERSITY OF OREGON - EUGENE 7705**  
 INSTABILITIES IN PROTOSTELLAR STAR/DISK SYSTEMS (A TP - 98)  
 05/10/1999 - 04/30/2001 FY00: \$23,787 Total: \$48,845  
 Prin. Invest.: J IMAMURA  
 Tech. Officer: GSFC/R K OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NCC 2 1089 UNIVERSITY OF OREGON - EUGENE 7706**  
 AFFECT & AERONAUTICAL DECISION-MAKING  
 02/02/1999 - 10/14/2000 FY00: \$99,995 Total: \$199,615  
 Prin. Invest.: R MAURO  
 Tech. Officer: ARC/I BARSHI  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 2 5299 UNIVERSITY OF OREGON - EUGENE 7707**  
 THE EFFECT OF UV RADIATION ON THE ESTABLISHMENT & INTEGRITY OF  
 MICROBIAL MATS  
 10/26/1998 - 12/31/2000 FY00: \$26,479 Total: \$51,479  
 Prin. Invest.: R W CASTENHOLZ  
 Tech. Officer: ARC/B M BEBOUT, ARC/D J DES MARAIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 2 5306 UNIVERSITY OF OREGON - EUGENE 7708**  
 CONSOLIDATED CULTURE COLLECTION OF MICROORGANISMS FOR  
 EXTREME ENVIRONMENTS  
 01/21/1999 - 12/31/2000 FY00: \$33,000 Total: \$83,000  
 Prin. Invest.: R W CASTENHOLZ  
 Tech. Officer: ARC/C P MCKAY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 5 50107 UNIVERSITY OF OREGON - EUGENE 7709**  
 POTENTIAL VEGETATION CHANGE IN NORTH AMERICA IN RESPONSE TO WARMING  
 09/06/1997 - 02/28/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: P BARTLEIN  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

## PENNSYLVANIA

**NAG 5 3617 ALLEGHENY COLLEGE 7710**  
 ASSESSING THE IMPACTS OF EL NINO CLIMATIC EVENTS ON PHILIPPINE  
 ECONOMY  
 02/21/1997 - 12/14/1999 FY00: \$0 Total: \$135,141  
 Prin. Invest.: D BENSEL  
 Tech. Officer: GSFC/A J TUYAHOV  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6564 ALLEGHENY COLLEGE 7711**  
 A WORKSHOP SERIES ON PROMOTING A SUSTAINABLE FOREST  
 INDUSTRY IN NORTHWEST PENNSYLVANIA  
 11/03/1997 - 08/31/1999 FY00: \$0 Total: \$49,960  
*Prin. Invest.:* T G BENSEL  
*Tech. Officer:* HQ/J DASCH  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7964 BLOOMSBURG UNIVERSITY 7712**  
 REMOTE SENSING OF FRACTAL PLANETARY SURFACES  
 01/11/1999 - 01/14/2001 FY00: \$78,300 Total: \$112,300  
*Prin. Invest.:* M K SHEPARD  
*Tech. Officer:* GSFC/J GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8679 BUCKNELL UNIVERSITY 7713**  
 INVESTIGATION OF AERODYNAMIC AND RADIOMETRIC LAND SURFACE  
 TEMPERATURES  
 07/27/1999 - 08/14/2001 FY00: \$64,365 Total: \$104,415  
*Prin. Invest.:* R D CRAGO  
*Tech. Officer:* GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8699 BUCKNELL UNIVERSITY 7714**  
 IMPROVED PREDICTION OF MOMENTUM AND SCALAR FLUXES USING  
 MODIS IMAGERY  
 08/17/1999 - 08/14/2001 FY00: \$18,750 Total: \$36,920  
*Prin. Invest.:* R D CRAGO  
*Tech. Officer:* GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2090 CARNEGIE - MELLON UNIVERSITY 7715**  
 NOVEL SCALABLE ALGORITHMS FOR AEROSPACE DESIGN OPTIMIZATION  
 ON MASSIVELY PARALLEL COMPUTERS  
 07/21/1998 - 08/31/2001 FY00: \$97,293 Total: \$205,403  
*Prin. Invest.:* O GHATTAS  
*Tech. Officer:* LARC/R T BIEDRON, GSFC/J SOBIESKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1230 CARNEGIE - MELLON UNIVERSITY 7716**  
 APPLICATION SPECIFIC SUPER COMPUTING  
 06/16/1998 - 02/28/2001 FY00: \$300,000 Total: \$1,049,288  
*Prin. Invest.:* T C MOWRY, O C GHATTAS, D R O'HALLARON  
*Tech. Officer:* ARC/C H SCHULBACH  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 2 1233 CARNEGIE - MELLON UNIVERSITY 7717**  
 PRECISION POSITIONING FROM VISUAL TRACKING OF NATURAL  
 FEATURES  
 07/01/1998 - 05/31/2000 FY00: \$0 Total: \$99,984  
*Prin. Invest.:* M HEBERT  
*Tech. Officer:* ARC/J A SCHREINER  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1266 CARNEGIE - MELLON UNIVERSITY 7718**  
 INTELLIGENT ROBOTICS: AUTONOMOUS NAVIGATION, HEALTH MAINTENANCE  
 09/16/1998 - 05/31/2000 FY00: \$0 Total: \$649,878  
*Prin. Invest.:* R S SIMMONS  
*Tech. Officer:* ARC/M H SIMS, ARC/S LAU  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1276 CARNEGIE - MELLON UNIVERSITY 7719**  
 UAV MODELING & CONTROL  
 01/04/1999 - 11/30/2000 FY00: \$65,057 Total: \$144,372  
*Prin. Invest.:* C E THORPE  
*Tech. Officer:* ARC/M B TISCHLER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1288 CARNEGIE - MELLON UNIVERSITY 7720**  
 AUTOMATED VERIFICATION OF DIAGNOSTIC MODELS  
 02/02/1999 - 11/30/1999 FY00: \$0 Total: \$24,808  
*Prin. Invest.:* R G SIMMONS  
*Tech. Officer:* ARC/M R LOWRY  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1294 CARNEGIE - MELLON UNIVERSITY 7721**  
 DECENTRALIZED ARCHITECTURE FOR MULTI-ROBOT COORDINATION  
 02/19/1999 - 05/31/2000 FY00: \$0 Total: \$299,294  
*Prin. Invest.:* R G SIMMONS  
*Tech. Officer:* ARC/M H SIMS  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1393 CARNEGIE - MELLON UNIVERSITY 7722**  
 MODEL-BASED PROGRAMMING SKUNKWORKS  
 02/01/2000 - 01/01/2001 FY00: \$90,000 Total: \$90,000  
*Prin. Invest.:* R SIMMONS  
*Tech. Officer:* ARC/M SHIRLEY  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1402 CARNEGIE - MELLON UNIVERSITY 7723**  
 AUTOMATED VERIFICATION OF DIAGNOSTIC MODELS  
 04/12/2000 - 03/28/2001 FY00: \$65,000 Total: \$65,000  
*Prin. Invest.:* R G SIMMONS  
*Tech. Officer:* ARC/M LOWRY  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1408 CARNEGIE - MELLON UNIVERSITY 7724**  
 MEMORY-BASED ACTIVE LEARNING OF DYNAMIC CONTROL  
 05/30/2000 - 09/30/2000 FY00: \$30,777 Total: \$30,777  
*Prin. Invest.:* J SCHNEIDER  
*Tech. Officer:* ARC/N MUSCETTOLA  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1441 CARNEGIE - MELLON UNIVERSITY 7725**  
 UAV FLIGHT DYNAMICS & CONTROL  
 09/28/2000 - 08/31/2001 FY00: \$158,870 Total: \$158,870  
*Prin. Invest.:* C E THORPE  
*Tech. Officer:* ARC/M B TISCHER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2159 CARNEGIE - MELLON UNIVERSITY 7726**  
 LATEAL MOTION OF PARTICLES AND BUBBLES CAUSED BY PHORETIC  
 FLOWS NEAR A SOLID INTERFACE  
 04/22/1998 - 12/31/2002 FY00: \$100,000 Total: \$280,000  
*Prin. Invest.:* P J SIDES, Y E SOLOMENTSER, J L ANDERSON  
*Tech. Officer:* GRC/R B ROGERS  
 CASE Category: 13 - PHYSICS

**NAG 3 2449** **CARNEGIE - MELLON UNIVERSITY** **7727**  
 MICROSCALE HYDRODYNAMICS NEAR MOVING CONTACT LINES MICRO-  
 SCALE HYDRODYNAMICS NEAR MOVING CONTACT LINE  
 06/12/2000 - 05/18/2005 FY00: \$58,020 Total: \$58,020  
 Prin. Invest.: S GAROFF  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 5 3651** **CARNEGIE - MELLON UNIVERSITY** **7728**  
 MISSION SCIENTIST FOR ESA'S X-RAY MULTI-MIRROR MIS  
 03/06/1997 - 02/29/2000 FY00: \$0 Total: \$410,000  
 Prin. Invest.: D GRIFFITHS  
 Tech. Officer: GSFC/D MACHI  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6548** **CARNEGIE - MELLON UNIVERSITY** **7729**  
 A NEW LOOK AT CLUSTER EVOLUTION (LTSA)  
 10/29/1997 - 10/31/2000 FY00: \$48,300 Total: \$149,500  
 Prin. Invest.: R NICHOL  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7898** **CARNEGIE - MELLON UNIVERSITY** **7730**  
 CLUES TO THE ORIGIN OF THE HARD X-RAY BACKGROUND: ASCA DEEP  
 SURVEYS OF DEEP ROSAT FIELDS (ADP98)  
 01/12/1999 - 12/31/1999 FY00: \$0 Total: \$46,726  
 Prin. Invest.: R E GRIFFITHS Prin. Invest.: NONE  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7926** **CARNEGIE - MELLON UNIVERSITY** **7731**  
 THE VIPER SUNYAEV-ZELDOVICH SURVEY (LTSA 98)  
 01/03/1999 - 12/31/2000 FY00: \$90,000 Total: \$180,000  
 Prin. Invest.: A K ROMER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8093** **CARNEGIE - MELLON UNIVERSITY** **7732**  
 AN AUTOMATED SYSTEM FOR THE REDUCTION AND ANALYSIS OF X-RAY  
 DATA FROM GALAXIES  
 02/01/1999 - 01/31/2001 FY00: \$70,908 Total: \$146,198  
 Prin. Invest.: A F PTAK  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8744** **CARNEGIE - MELLON UNIVERSITY** **7733**  
 CARBON NANOTUBES: NOVEL ANODE MATERIALS FOR SOLID STATE THIN  
 FILM LITHIUM ION CELLS FOR MEMS APPLICA  
 08/23/1999 - 09/30/2000 FY00: \$0 Total: \$25,000  
 Prin. Invest.: P N KUMTA  
 Tech. Officer: GSFC/H C SHAW  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 5 9242** **CARNEGIE - MELLON UNIVERSITY** **7734**  
 APPLICATION & ENGINEERING OF THIN FILM LITHIUM-ION BATTERIES  
 USING CARBON NANOTUBES & SOL-GEL DERIVE  
 03/10/2000 - 03/14/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: P KUMTA  
 Tech. Officer: GSFC/H SHAW  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 5 9309** **CARNEGIE - MELLON UNIVERSITY** **7735**  
 ARTIFICIAL INTELLIGENCE TECHNIQUES FOR MINERAL IDENTIFICATION  
 FROM NEAR INFRARED SPECTRA ONBOARD FUT  
 03/20/2000 - 03/14/2001 FY00: \$47,800 Total: \$47,800  
 Prin. Invest.: C GLYMOUR  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9899** **CARNEGIE - MELLON UNIVERSITY** **7736**  
 XMM SURVEY OF THE SHARC SAMPLE: CONSTRAINING OMEGA AND  
 CLUSTER FORMATION  
 09/06/2000 - 09/14/2001 FY00: \$12,700 Total: \$12,700  
 Prin. Invest.: A ROMER  
 Tech. Officer: GSFC/R F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9902** **CARNEGIE - MELLON UNIVERSITY** **7737**  
 MISSION SCIENTIST FOR ESA'S X-RAY MULTI-MIRROR MISSION  
 08/25/2000 - 08/31/2001 FY00: \$160,000 Total: \$160,000  
 Prin. Invest.: R E GRIFFITHS  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9922** **CARNEGIE - MELLON UNIVERSITY** **7738**  
 XMM SEARCHES FOR IRON LINES IN LOW LUMINOSITY AGN: A TEST OF  
 ACCRETION THEORIES  
 09/05/2000 - 09/15/2001 FY00: \$16,410 Total: \$16,410  
 Prin. Invest.: A F PTAK  
 Tech. Officer: GSFC/P M ATKINS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10014** **CARNEGIE - MELLON UNIVERSITY** **7739**  
 'FOSSIL GROUPS' IN THE BRIGHT SHARC SURVEY  
 09/21/2000 - 09/30/2001 FY00: \$18,100 Total: \$18,100  
 Prin. Invest.: R C NICHOL  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1674** **CARNEGIE - MELLON UNIVERSITY** **7740**  
 SHAPRE EVOLUTION KINETICS OF SMALL PARTICLES  
 06/28/2000 - 07/19/2000 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: G S ROHRER, W M MULLINS  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 12 - CHEMISTRY

**NAG 9 1090** **CARNEGIE - MELLON UNIVERSITY** **7741**  
 ANTARCTIC METEORITE SEARCH DEMONSTRATION  
 02/26/1999 - 03/15/2001 FY00: \$1,000,000 Total: \$2,000,000  
 Prin. Invest.: T KANADE, W WHITAKER  
 Tech. Officer: HQ/D LAVERY  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 1092** **CARNEGIE - MELLON UNIVERSITY** **7742**  
 AUTONOMOUS ROVER TECHNOLOGY  
 03/15/1999 - 03/15/2001 FY00: \$470,000 Total: \$1,070,000  
 Prin. Invest.: T KANADE  
 Tech. Officer: JSC/D LAVERY  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 1096** **CARNEGIE - MELLON UNIVERSITY** **7743**  
 PARTICIPATION IN THE FIRST COMPETITION  
 04/08/1999 - 04/19/2000 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* W WHITTAKER  
*Tech. Officer:* JSC/C J COLBERT, JSC/C PRICE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 9 1141** **CARNEGIE - MELLON UNIVERSITY** **7744**  
 ROBOTIC ASSEMBLY AND MAINTENANCE OF SOLAR FACILITIES  
 08/26/1999 - 08/26/2000 FY00: \$0 Total: \$449,977  
*Prin. Invest.:* W WHITTAKER  
*Tech. Officer:* JSC/H ALDRIDGE  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 9 1214** **CARNEGIE - MELLON UNIVERSITY** **7745**  
 PARTICIPATION IN THE FIRST COMPETITION 2000  
 03/03/2000 - 03/03/2001 FY00: \$35,000 Total: \$35,000  
*Prin. Invest.:* W WHITTAKER, D APOSTOLOULOS  
*Tech. Officer:* JSC/C J COLBERT, JSC/C PRICE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 9 1226** **CARNEGIE - MELLON UNIVERSITY** **7746**  
 DISTRIBUTED MULTI-ROBOT ASSEMBLY AND CONSTRUCTION  
 05/12/2000 - 05/15/2001 FY00: \$300,000 Total: \$300,000  
*Prin. Invest.:* R SIMMONS  
*Tech. Officer:* JSC/T PENDLETON, JSC/C CULBERT  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 9 1232** **CARNEGIE - MELLON UNIVERSITY** **7747**  
 STRATEGIC POSITIONING AND ATTITUDE COMPUTING ENGINE FOR  
 HOMING ORBITING GADGETRY  
 05/15/2000 - 09/30/2000 FY00: \$250,000 Total: \$250,000  
*Prin. Invest.:* O AMIDI  
*Tech. Officer:* JSC/R D JUDAY  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 9 1240** **CARNEGIE - MELLON UNIVERSITY** **7748**  
 SKYWORKER PHASE II SPACE SOLAR POWER  
 06/29/2000 - 12/30/2000 FY00: \$124,624 Total: \$124,624  
*Prin. Invest.:* R W WHITTAKER  
*Tech. Officer:* JSC/C J COLBERT, JSC/H ALDRIDGE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 9 1242** **CARNEGIE - MELLON UNIVERSITY** **7749**  
 RESEARCH GRANT  
 06/30/2000 - 07/01/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* D HERSHBERGER, D HERSHBERGER  
*Tech. Officer:* JSC/C FARMER, JSC/W TARKINGTON  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 9 1248** **CARNEGIE - MELLON UNIVERSITY** **7750**  
 AUTONOMOUS RECONNAISSANCE ROVER FOR EVA ROBOTIC AS  
 SISTANCE  
 07/18/2000 - 07/16/2003 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* D APOSTOLOPOULOS  
*Tech. Officer:* JSC/C J COLBERT, JSC/C FARMER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 9 1256** **CARNEGIE - MELLON UNIVERSITY** **7751**  
 SUN SYNCHRONOUS CIRCUMNAVIGATION  
 08/21/2000 - 12/20/2001 FY00: \$1,078,139 Total: \$1,078,139  
*Prin. Invest.:* W R WHITTAKER  
*Tech. Officer:* JSC/C J COLBERT, JSC/H ALDRIDGE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAS 3 27735** **CARNEGIE - MELLON UNIVERSITY** **7752**  
 COORDINATED APPROACH TO DEVELOPMENT & VALIDATION OF AERO-  
 ELASTIC CODES  
 05/30/1996 - 03/31/2001 FY00: \$0 Total: \$569,130  
*Prin. Invest.:* J H GRIFFIN  
*Tech. Officer:* GRC/R DEL ROSARIO, GRC/G L STEFKO  
*CASE Category:* 46 - MECHANICAL ENGR

**NCC 2 1026** **CARNEGIE - MELLON UNIVERSITY** **7753**  
 AUTONOMOUS SCIENCE SOFTWARE  
 03/06/1998 - 01/31/2001 FY00: \$0 Total: \$374,472  
*Prin. Invest.:* C GLYMOUR  
*Tech. Officer:* ARC/TL ROUGH  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 1188** **CARNEGIE - MELLON UNIVERSITY** **7754**  
 HIGH DEPENDABILITY COMPUTING CONSORTIUM  
 07/11/2000 - 06/30/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* J H MORRIS  
*Tech. Officer:* ARC/M E DUENAS  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5319** **CARNEGIE - MELLON UNIVERSITY** **7755**  
 ROBOTIC ROCK CLASSIFICATION  
 04/21/1999 - 08/14/1999 FY00: \$0 Total: \$13,772  
*Prin. Invest.:* M HEBERT  
*Tech. Officer:* ARC/T LROUSH  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 3 465** **CARNEGIE - MELLON UNIVERSITY** **7756**  
 MICROSCALE HYDRODYNAMICS NEAR MOVING CONTRACT LINE S  
 04/18/1996 - 04/17/2000 FY00: \$154,000 Total: \$679,984  
*Prin. Invest.:* S GAROFF, M WEISLOGEL  
*Tech. Officer:* GRC/R SKARDA  
*CASE Category:* 13 - PHYSICS

**NCC 5 223** **CARNEGIE - MELLON UNIVERSITY** **7757**  
 NATIONAL ROBOTICS ENGINEERING CONSORTIUM  
 08/26/1997 - 07/31/2001 FY00: \$2,770,000 Total: \$10,983,000  
*Prin. Invest.:* T KANADE  
*Tech. Officer:* GSFC/R KADUNC  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 431** **CARNEGIE - MELLON UNIVERSITY** **7758**  
 EVENTSCOPE: A 3D, NETWORKED ROBOTIC LEARNING ENVIR ONMENT. IN  
 RESPONSE TO NASA COOPERATIVE AGREEME  
 09/20/1999 - 09/30/2001 FY00: \$151,530 Total: \$221,530  
*Prin. Invest.:* P COPPIN  
*Tech. Officer:* GSFC/R E GABRYS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

## NASA'S UNIVERSITY PROGRAM

## PENNSYLVANIA

**NCC 8 1704** **CARNEGIE - MELLON UNIVERSITY** **7759**  
 LATTICE BOLTZMANN COMPUTATIONS OF BINARY DIFFUSION IN LIQUIDS  
 UNDER STOCHASTIC MICROGRAVITY  
 05/24/2000 - 11/30/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: R F SEKERKA  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NGT 2 52232** **CARNEGIE - MELLON UNIVERSITY** **7760**  
 LANDMARK BASED NAVIGATION FOR A PLANETARY ROVER  
 08/26/1997 - 09/30/2000 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: M HEBERT  
 Tech. Officer: ARC/M H SIMS  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 3 52326** **CARNEGIE - MELLON UNIVERSITY** **7761**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 06/13/1997 - 08/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: P N RUMTA  
 Tech. Officer: GRC/F MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 3 52370** **CARNEGIE - MELLON UNIVERSITY** **7762**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 06/20/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: P N KUMTA  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 5 50054** **CARNEGIE - MELLON UNIVERSITY** **7763**  
 INVESTIGATING THE MECH. OF AGGREGATION OF COLLOIDAL CRYSTAL-  
 LITIC DEPOSITION  
 08/05/1997 - 12/31/1999 FY00: -\$18,333 Total: \$47,667  
 Prin. Invest.: J L ANDERSON  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50248** **CARNEGIE - MELLON UNIVERSITY** **7764**  
 TASK EVALUATION FOR ROBOTIC EXPLORERS STUDENT: KIMBERLY SHILL-  
 CUTT  
 06/04/1999 - 06/30/2001 FY00: \$11,000 Total: \$33,000  
 Prin. Invest.: W WHITTAKER  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50279** **CARNEGIE - MELLON UNIVERSITY** **7765**  
 EFFICIENT MACHINE LEARNING ALGORITHMS FOR SCIENCE STUDENT:  
 ALEXANDER G. GRAY  
 06/20/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: A W MOORE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1312** **CLARION UNIVERSITY OF PENNSYLVANIA** **7766**  
 JOVE RESEARCH  
 01/22/1997 - 08/31/2000 FY00: \$0 Total: \$86,000  
 Prin. Invest.: A J VEGA, P T RYBERG  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 1770** **DREXEL UNIVERSITY** **7767**  
 A STUDY OF DMS AND SO2 ON PEM-TROPICS MY 1/2  
 09/29/1995 - 05/30/1999 FY00: -\$215 Total: \$832,501  
 Prin. Invest.: D R BANDY  
 Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1436** **DREXEL UNIVERSITY** **7768**  
 ALTERED SIGNAL TRANSDUCTION & DIFFERENTIAL GENE EXPRESSION IN  
 PC12 PHEOCYTOMOCYTOMA CELLS IN CULTURE  
 09/19/2000 - 08/31/2001 FY00: \$195,298 Total: \$195,298  
 Prin. Invest.: P I LELKES  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1715** **DREXEL UNIVERSITY** **7769**  
 IN VIVO EVALUATION OF A NOVEL AND IMPROVED INSTRUMENT FOR  
 OBJECTIVE EVALUATION OF OPHTHALMIC LENS OP  
 03/01/1995 - 04/06/2000 FY00: -\$47,037 Total: \$73,910  
 Prin. Invest.: S DUBIN VMD  
 Tech. Officer: GRC/J S LING, GRC/B S SINGH  
 CASE Category: 56 - MEDICAL

**NAG 3 1884** **DREXEL UNIVERSITY** **7770**  
 COMBUSTION OF UNCONFINED DROPLET CLUSTERS IN MICRO GRAVITY  
 06/01/1996 - 09/30/2000 FY00: \$51,275 Total: \$321,727  
 Prin. Invest.: D A RUFF  
 Tech. Officer: GRC/D D ROSS, GRC/M A SACKSTEDTER  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2171** **DREXEL UNIVERSITY** **7771**  
 DEVELOPMENT OF METHODS TO QUANTIFY ICE ACCRETION CHARACTER-  
 ISTICS  
 06/04/1998 - 01/31/1999 FY00: -\$7,671 Total: \$81,443  
 Prin. Invest.: C A RUFF  
 Tech. Officer: GRC/M G POTAPCZUK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2212** **DREXEL UNIVERSITY** **7772**  
 DEVELOPMENT OF LEAN DIRECT WALL INJECTION (LDWI) COMBUSTOR  
 12/03/1998 - 11/08/2000 FY00: \$47,790 Total: \$112,580  
 Prin. Invest.: K J CHOI  
 Tech. Officer: GRC/R R TACINA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2291** **DREXEL UNIVERSITY** **7773**  
 ENZYMATIC CATABOLYSIS MONITORING USING A DYNAMIC LIGHT  
 SCATTERING PROBE  
 09/09/1999 - 07/19/2000 FY00: \$0 Total: \$21,235  
 Prin. Invest.: M A DELLAVECCHIA, NONE  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2295** **DREXEL UNIVERSITY** **7774**  
 DEVELOPMENT AND VERIFICATION OF AN IMPROVED MODEL OF THE ICE  
 ACCRETION PROCESS  
 09/29/1999 - 02/09/2001 FY00: \$84,477 Total: \$82,975  
 Prin. Invest.: D A RUFF, NONE  
 Tech. Officer: GRC/M G POTAPCZUK  
 CASE Category: 41 - AERONAUTICAL ENGR

<b>NAG 5 6029</b>	<b>DREXEL UNIVERSITY</b>	<b>7775</b>	<b>NCC 1 409</b>	<b>DREXEL UNIVERSITY</b>	<b>7783</b>
WORK IN SUPPORT OF THE NASA ESS HPCC PROGRAM			AN AIRBORNE STUDY OF THE CHEMISTRY OF SULFUR IN THE ATMOSPHERE		
10/06/1997 - 09/30/2000	FY00: \$57,948	Total: \$520,218	OF THE WESTERN NORTH PACIFIC OCEAN		
Prin. Invest.: B FRYXELL			09/11/2000 - 06/30/2002	FY00: \$152,036	Total: \$152,036
Tech. Officer: GSFC/J R FISCHER			Prin. Invest.: A R BANDY		
CASE Category: 29 - MATH/COMPUTER SCI, OTHER			Tech. Officer: LARC/J L RAPER, SR		
			CASE Category: 31 - ATMOSPHERIC SCIENCE		
<b>NAG 5 8964</b>	<b>DREXEL UNIVERSITY</b>	<b>7776</b>	<b>NCC 3 822</b>	<b>DREXEL UNIVERSITY</b>	<b>7784</b>
STELLAR AND BINARY EVOLUTION IN GLOBULAR CLUSTERS - ATP			EXPERIMENTAL AND MODEL DEVELOPMENT FOR INVESTIGATION OF		
02/10/1998 - 02/14/2001	FY00: \$115,870	Total: \$350,826	SHOOTING AND RADIATION EFFECTS IN MICROGRAVITY		
Prin. Invest.: S L MCMILLAN			08/17/2000 - 12/31/2002	FY00: \$55,086	Total: \$55,086
Tech. Officer: GSFC/D K WEST			Prin. Invest.: D CHOI		
CASE Category: 11 - ASTRONOMY			Tech. Officer: GRC/D L URBAN		
			CASE Category: 49 - ENGINEERING, OTHER		
<b>NAG 5 8929</b>	<b>DREXEL UNIVERSITY</b>	<b>7777</b>	<b>NCC 3 825</b>	<b>DREXEL UNIVERSITY</b>	<b>7785</b>
SCHOOL-BASED UV-B MONITORING PROJECT IN SUPPORT OF EOS-CHEM			DEVELOPMENT OF THERMALLY SPRAYED FGM EROSION/OXIDATION		
01/13/2000 - 01/14/2001	FY00: \$83,210	Total: \$83,210	RESISTANT COATING FOR POLYMERIC SUBSTRATES		
Prin. Invest.: D R BROOKS			09/26/2000 - 06/31/2003	FY00: \$35,380	Total: \$35,380
Tech. Officer: GSFC/E HILSEN RATH			Prin. Invest.: D KNIGHT		
CASE Category: 31 - ATMOSPHERIC SCIENCE			Tech. Officer: GRC/J K SUTTER		
			CASE Category: 47 - METAL & MATERIALS ENGR		
<b>NAG 5 9264</b>	<b>DREXEL UNIVERSITY</b>	<b>7778</b>	<b>NAG 5 6858</b>	<b>FRANKLIN-MARSHALL COLLEGE</b>	<b>7786</b>
BINARY EVOLUTION IN GLOBULAR CLUSTERS - ATP			STATISTICAL ALGORITHMS FOR THE ANALYSIS OF SPACE-BASED DATA-		
03/13/2000 - 03/31/2001	FY00: \$68,066	Total: \$68,066	SETS		
Prin. Invest.: S MCMILLAN			02/09/1998 - 02/14/2001	FY00: \$0	Total: \$63,912
Tech. Officer: GSFC/R OLIVERSEN			Prin. Invest.: D BACKMAN		
CASE Category: 11 - ASTRONOMY			Tech. Officer: GSFC/D K WEST		
			CASE Category: 11 - ASTRONOMY		
<b>NAG13 00040</b>	<b>DREXEL UNIVERSITY</b>	<b>7779</b>	<b>NCC 2 5263</b>	<b>FRANKLIN-MARSHALL COLLEGE</b>	<b>7787</b>
APPLICATION OF AN INTEGRATED MONITORING & MODELING SYSTEM			NEARBY STARS (NSTARS) DATABASE		
NARRAGANSETT BAY - INTERNET-BASED TECHNOL			04/09/1998 - 12/31/1999	FY00: -\$5,044	Total: \$122,556
08/23/2000 - 08/22/2001	FY00: \$509,585	Total: \$509,585	Prin. Invest.: D E BACKMAN		
Prin. Invest.: M PIASECKI, M SPAULDING			Tech. Officer: ARC/L J CAROFF		
Tech. Officer: SSC/R MILLER			CASE Category: 11 - ASTRONOMY		
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER					
<b>NCC 1 224</b>	<b>DREXEL UNIVERSITY</b>	<b>7780</b>	<b>NCC 2 5365</b>	<b>FRANKLIN-MARSHALL COLLEGE</b>	<b>7788</b>
ROBUST CONTROL OF NONLINEAR AND PARAMETER DEPENDENT			THE NSTARS PROJECT: DATABASE, ASTROPHYSICS AND ASTRONOMY		
SYSTEMS			RESEARCH AND SCIENTIFIC WORKSHOPS		
04/03/1996 - 11/15/1998	FY00: -\$1	Total: \$152,000	02/01/2000 - 01/31/2001	FY00: \$63,250	Total: \$63,250
Prin. Invest.: B C CHANG, H G KWATNY			Prin. Invest.: D BACKMAN		
Tech. Officer: LARC/C M BELCASTRO			Tech. Officer: ARC/L CAROFF		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 99 - MULTIDISCIPL, OTHER		
<b>NCC 1 278</b>	<b>DREXEL UNIVERSITY</b>	<b>7781</b>	<b>NAG 5 9285</b>	<b>HAVERFORD COLLEGE</b>	<b>7789</b>
EFFECTS OF ELECTROMAGNETIC-INDUCED FAILURE MODES: MODELING			LARGE-SCALE STRUCTURE IN THE X-RAY BACKGROUND AND LIMITS ON		
AND ANALYSIS 1/3			COSMOLOGICAL PARAMETERS FROM THE INTEGRAL		
02/25/1998 - 12/31/2000	FY00: \$89,800	Total: \$190,900	04/17/2000 - 04/30/2001	FY00: \$29,170	Total: \$29,170
Prin. Invest.: A C LAU, B C CHANG			Prin. Invest.: S P BOUGHN		
Tech. Officer: LARC/C M BELCASTRO			Tech. Officer: GSFC/R J OLIVERSEN		
CASE Category: 41 - AERONAUTICAL ENGR			CASE Category: 11 - ASTRONOMY		
<b>NCC 1 297</b>	<b>DREXEL UNIVERSITY</b>	<b>7782</b>	<b>NAG 9 1196</b>	<b>LA SALLE UNIVERSITY</b>	<b>7790</b>
A STUDY OF THE CHEMISTRY OF SULFUR IN THE INTER-TROPICAL AND			ANALYSIS AND DESIGN OF AUTOMATION ASSISTANTS FOR FLIGHT		
SOUTH PACIFIC CONVERGENCE ZONES			CONTROLLER TEAMS IN THE MISSION CONTROL CENTER		
04/28/1998 - 04/29/2001	FY00: \$52,000	Total: \$498,742	01/24/2000 - 11/01/2000	FY00: \$15,500	Total: \$15,500
Prin. Invest.: A R BANDY, D C THORNTON			Prin. Invest.: M TAVANA		
Tech. Officer: LARC/J L ROPER, LARC/R J BENDURA			Tech. Officer: JSC/D G SICKOREZ, JSC/S E TORNY		
CASE Category: 31 - ATMOSPHERIC SCIENCE			CASE Category: 22 - COMPUTER SCIENCE		



<b>NAG 1 1885</b> <b>LEHIGH UNIVERSITY</b> <b>7791</b> VORTEX-BODY INTERACTIONS: A CRITICAL ASSESSMENT 12/18/1996 - 12/31/1999      FY00: -\$1      Total: \$45,000 Prin. Invest.: D O ROCKWELL Tech. Officer: LARC/B S LAZOS, LARC/M J WALSH CASE Category: 46 - MECHANICAL ENGR	<b>NAG 1 999</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7799</b> STUDIES OF RADIATION AND MICROPHYSICS IN CIRRUS AND MARINE STRATOCUMULUS 05/25/1989 - 09/30/1998      FY00: -\$1      Total: \$584,316 Prin. Invest.: T P ACKERMAN Tech. Officer: LARC/T OWENS CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 1 2248</b> <b>LEHIGH UNIVERSITY</b> <b>7792</b> ANALYSIS OF PIV IMAGING OF COUPLED GAP-WAKE INSTABILITIES/TURBULENCE: SOURCE OF NOISE 10/25/1999 - 09/30/2000      FY00: \$15,000      Total: \$15,000 Prin. Invest.: D O ROCKWELL Tech. Officer: LARC/M J WALSH CASE Category: 46 - MECHANICAL ENGR	<b>NAG 1 1833</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7800</b> THE DIRECT NUMERICAL SIMULATION OF PERFORATED PLATES LINERS 04/29/1996 - 04/28/1999      FY00: -\$1      Total: \$150,000 Prin. Invest.: L N LONG Tech. Officer: LARC/M B TRACY CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG13 47</b> <b>LINCOLN UNIVERSITY - PA.</b> <b>7793</b> EXPLORING THE CHALLENGE OF INTEGRATING TECHNOLOGY AND EDUCATION 08/16/1995 - 06/30/1999      FY00: -\$122,056      Total: \$147,438 Prin. Invest.: D ROYER Tech. Officer: SSC/A JOYCE CASE Category: 47 - METAL & MATERIALS ENGR	<b>NAG 1 1924</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7801</b> NUMERICAL SIMULATION OF THE EFFECTS OF FUSELAGE SCATTERING ON THE NOISE RADIATED BY ROTORCRAFT 05/13/1997 - 08/31/2000      FY00: \$40,571      Total: \$152,108 Prin. Invest.: P J MORRIS Tech. Officer: LARC/D P LOCKAND CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 5 3368</b> <b>PENN. ST. U. @ ERIE-BEHREND COLLEGE</b> <b>7794</b> ISO SOLAR SYSTEM MISSION-TEAM MEMBER SUPPORT 08/28/1996 - 09/30/2001      FY00: \$0      Total: \$60,000 Prin. Invest.: R F KNACKE Tech. Officer: GSFC/R OLIVERSEN CASE Category: 22 - COMPUTER SCIENCE	<b>NAG 1 2050</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7802</b> ROTOR LEAD-LAG CONTROL FOR HELICOPTER VIBRATION & NOISE REDUCTION 03/31/1998 - 12/31/1999      FY00: \$0      Total: \$100,000 Prin. Invest.: F S GHANDI Tech. Officer: LARC/M W NIXON, LARC/M L WILBUR CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 9 1034</b> <b>PENNSYLVANIA STATE UNIV -HERSHEY MED.</b> <b>7795</b> EFFECT OF HEAD MOVEMENTS ON SYMPATHETIC NERVE ACTIVITY IN HUMANS: ROLE OF THE VESTIBULAR SYSTEM 07/20/1996 - 07/19/2001      FY00: \$79,063      Total: \$227,063 Prin. Invest.: C A RAY Tech. Officer: JSC/C W LLOYD CASE Category: 56 - MEDICL	<b>NAG 1 2064</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7803</b> STUDIES OF RADIATION AND MICROPHYSICS IN CIRRUS AND MARINE STRATOCUMULUS CLOUDS 05/19/1998 - 02/28/1999      FY00: -\$1      Total: \$45,000 Prin. Invest.: T P ACKERMAN Tech. Officer: LARC/D S MCDOUGAL, LARC/J L RAPER CASE Category: 31 - ATMOSPHERIC SCIENCE
<b>NAG 9 1044</b> <b>PENNSYLVANIA STATE UNIV -HERSHEY MED.</b> <b>7796</b> NEUROVASCULAR RESPONSE TO BED REST 07/15/1998 - 07/14/2001      FY00: \$112,560      Total: \$340,560 Prin. Invest.: L I SINOWAY Tech. Officer: JSC/C F SAWIN CASE Category: 56 - MEDICL	<b>NAG 1 2093</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7804</b> ROBUST PARALLEL COMPUTATIONAL METHODS FOR UNSTEADY FLUID DYNAMICS 07/27/1998 - 06/30/2000      FY00: \$0      Total: \$90,051 Prin. Invest.: L N LONG Tech. Officer: LARC/F FARASSAT, LARC/J W POSEY CASE Category: 41 - AERONAUTICAL ENGR
<b>NAG 9 1259</b> <b>PENNSYLVANIA STATE UNIV -HERSHEY MED.</b> <b>7797</b> BED REST & NEUROVASCULAR FUNCTION 09/25/2000 - 08/31/2003      FY00: \$32,268      Total: \$32,268 Prin. Invest.: D MACLEAN Tech. Officer: JSC/C W LLOYD CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 1 2095</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7805</b> BIOCYBERNETIC SYSTEMS IN RELATION TO ATTENTIONAL FOCI: CONTROL OF HAZARDOUS AWARENESS 07/29/1998 - 11/30/1999      FY00: -\$734      Total: \$59,266 Prin. Invest.: W J RAY Tech. Officer: LARC/A T POPE CASE Category: 69 - PSYCHOLOGY, OTHER
<b>NGT 5 50264</b> <b>PENNSYLVANIA STATE UNIV -HERSHEY MED.</b> <b>7798</b> TRANSGENIC ZEBRAFISH AS AN INDICATOR OF MUTAGENIC RISK 07/07/1999 - 06/30/2001      FY00: \$22,000      Total: \$44,000 Prin. Invest.: C CHENG Tech. Officer: GSFC/L SMITH CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 1 2147</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7806</b> NUMERICAL SIMULATIONS FOR LANDING GEAR NOISE GENERATION AND RADIATION (REF:NRA 98-LARC-5) 02/05/1999 - 12/31/2001      FY00: \$145,991      Total: \$286,954 Prin. Invest.: P J MORRIS, L N LONG Tech. Officer: LARC/R R ANTOLIFF CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2208** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7807  
SIMULATION OF THE NOISE RADIATED BY RECTANGULAR JETS  
06/24/1999 - 05/31/2001 FY00: \$95,000 Total: \$120,000  
Prin. Invest.: P J MORRIS, L N LONG  
Tech. Officer: LARC/R A GOLUB, LARC/D P GARBER  
CASE Category: 49 - ENGINEERING, OTHER

**NAG 1 2273** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7808  
ADAPTIVE INTERFACE APPROACH USING A REAL TIME BIOCYBERNETIC  
SYSTEM: CONTROL OF HAZARDOUS  
02/25/2000 - 02/24/2001 FY00: \$30,000 Total: \$30,000  
Prin. Invest.: W J RAY  
Tech. Officer: LARC/L J PRINZEL/A T POPE  
CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 2 1117** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7809  
HOX MEASUREMENTS IN SOWE WITH THE AIRBORNE TROPOSPHERIC  
OXIDES SENSOR (ATHOS)  
02/25/1997 - 12/31/1999 FY00: \$0 Total: \$634,986  
Prin. Invest.: W H BRUNE  
Tech. Officer: ARC/R S HIPSKIND  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1152** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7810  
PERFORMANCE CHARACTERIZATION OF OBSTACLE DETECTION ALGO-  
RITHMS FOR AIRCRAFT NAVIGATION  
08/14/1997 - 09/30/1999 FY00: \$0 Total: \$482,414  
Prin. Invest.: R KASTRUI, O I CAMPS Prin. Invest.: NONE  
Tech. Officer: ARC/L S TONE, ARC/B T SWEET  
CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1165** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7811  
COMPUTATIONAL MODELING  
10/17/1997 - 11/30/1998 FY00: \$0 Total: \$125,000  
Prin. Invest.: R J DAVIS, H J GIBELING  
Tech. Officer: ARC/M MEYYAPPAN  
CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 2 1236** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7812  
SCALABLE NUMERICAL ALGORITHMS ON NONHETEROGENEOUS C  
OMPUTING ENVIRONMENTS WITH DYNAMIC ADAPTIVE ROUTI  
07/13/1998 - 06/30/2000 FY00: \$40,000 Total: \$120,000  
Prin. Invest.: J XU  
Tech. Officer: ARC/T J BARTH  
CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1295** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7813  
WEATHER FORECASTING SUPPORT FOR SOLVE  
03/03/1999 - 01/31/2001 FY00: \$29,067 Total: \$43,711  
Prin. Invest.: G S FORBES  
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1302** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7814  
PARTICIPATION AS MISSION SCIENTIST IN OBSERVATIONS FROM THE  
MIDDLE STRATOSPHERE DURING SOLVE  
03/05/1999 - 01/31/2001 FY00: \$39,000 Total: \$104,000  
Prin. Invest.: W H BRUNE  
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1309** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7815  
MEASUREMENTS OF CIO, BRO & HOX DURING SOLVE  
03/15/1999 - 03/31/2001 FY00: \$17,243 Total: \$95,097  
Prin. Invest.: W H BRUNE  
Tech. Officer: ARC/E P CONDON, ARC/R S HIPSKIND  
CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1312** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7816  
CONDITION-BASED MAINTENANCE III FOR NASA-AMES RESE ARCH  
CENTER  
03/19/1999 - 12/31/1999 FY00: \$0 Total: \$162,200  
Prin. Invest.: D C LANG, NONE  
Tech. Officer: ARC/A PATTERSON-HINE, ARC/S LAU  
CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1342** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7817  
MOLECULAR CONTROL OF CELL GROWTH DURING GRAVITY RE SPONSES  
OF MAIZE SEEDINGS  
07/20/1999 - 01/14/2001 FY00: \$113,633 Total: \$170,527  
Prin. Invest.: D J COSGROVE  
Tech. Officer: ARC/M M AVERNER, ARC/D D MACELROY  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1366** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7818  
GRAVITROPISM IN CHARA RHIZOIDS  
07/30/1999 - 12/14/2000 FY00: \$72,792 Total: \$143,872  
Prin. Invest.: S G GILROY  
Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1410** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7819  
OBSTACLE DETECTION ALGORITHMS FOR ROTORCRAFT NAVIGATION  
06/13/2000 - 05/14/2001 FY00: \$59,240 Total: \$59,240  
Prin. Invest.: R KASTURI, O I CAMPS  
Tech. Officer: ARC/A J AHUMADA, ARC/J B MULLIGAN  
CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 6026** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7820  
PUTTING DOWN ROOTS  
11/13/1998 - 11/30/1999 FY00: \$0 Total: \$15,000  
Prin. Invest.: S M ASSMANN  
Tech. Officer: ARC/R D MACELROY, ARC/M M AVERNER  
CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1871** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7821  
MICROGRAVITY EFFECTS ON TRANSENDOTHELIAL TRANSPORT  
05/22/1996 - 05/21/2001 FY00: \$64,000 Total: \$460,000  
Prin. Invest.: J M TAZBELL  
Tech. Officer: GRC/J S LING, GRC/B S SINGH  
CASE Category: 13 - PHYSICS

**NAG 3 1995** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7822  
AERO-THERMO-STRUCTURAL OPTIMIZATION OF COOLED TURBINE  
BLADES  
12/02/1996 - 11/26/1999 FY00: \$0 Total: \$294,320  
Prin. Invest.: G S DULIKRAVICH  
Tech. Officer: GRC/H J GLADDEN, GRC/C LAWRENCE  
CASE Category: 41 - AERONAUTICAL ENGR

## NASA'S UNIVERSITY PROGRAM

## PENNSYLVANIA

**NAG 3 2146** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7823  
 DAMAGE MITIGATING CONTROL OF AEROSPACE PROPULSION SYSTEMS  
 03/31/1998 - 08/31/1999 FY00: \$0 Total: \$18,997  
 Prin. Invest.: A RAY  
 Tech. Officer: GRC/C F LORENZO  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2151** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7824  
 MODELING OF COMBUSTION RESPONSE OF GAS TURBINE SPRAY SWIRL-STABILIZED INJECTORS TO ACOUSTIC OSCILLATION  
 04/07/1998 - 01/31/2001 FY00: \$40,000 Total: \$95,000  
 Prin. Invest.: V G YANG  
 Tech. Officer: GRC/K L BREISACHER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2328** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7825  
 A NUMERICAL AND EXPERIMENTAL STUDY OF THE FLOW AND NOISE FROM SUBSONIC AND SUPERSONIC JETS  
 03/17/2000 - 12/20/2000 FY00: \$122,618 Total: \$122,618  
 Prin. Invest.: P J MORRIS  
 Tech. Officer: GRC/M D DAHL  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2374** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7826  
 MOLECULAR DYNAMIC OF FLUID SOLID SYSTEMS MOLECULAR DYNAMIC OF FLUID SOLID SYSTEMS  
 03/31/2000 - 11/30/2003 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: D BANAVAR  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2448** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7827  
 HEALTH MANAGEMENT AND LIFE EXTENDING CONTROL OF GAS TURBINE ENGINES  
 05/30/2000 - 05/14/2003 FY00: \$35,000 Total: \$35,000  
 Prin. Invest.: A RAY  
 Tech. Officer: GRC/T GUO  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2470** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7828  
 DYNAMICS OF PARTICLES IN STATIONARY ISOTROPIC TURBULENCE  
 07/11/2000 - 11/30/2003 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: D R COLLINS  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 4 113** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7829  
 1997 TEACHER TUTORIALS: TEACHER TRAINING & TOOLS FOR WEB-BASED SCIENCE, MATH & TECHNOLOGY ETC  
 01/21/1997 - 12/21/2000 FY00: -\$105 Total: \$181,858  
 Prin. Invest.: B GRABOWSKI  
 Tech. Officer: DFRC/E L DUKE  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 4 160** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7830  
 LEARNING USING ERAST AIRCRAFT/LJAU  
 02/08/1999 - 02/08/2001 FY00: \$95,000 Total: \$210,165  
 Prin. Invest.: B GRABOWSKI, J A GOODE  
 Tech. Officer: DFRC/M MC CARTHY, DFRC/E L DUKE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 2857** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7831  
 PHYSICS AND COSMOLOGY OF HIGH-ENERGY SOURCES  
 01/23/1995 - 08/30/2000 FY00: \$0 Total: \$285,000  
 Prin. Invest.: P MESZAROS  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3166** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7832  
 MISSION OPERATIONS AND DATA ANALYSIS FOR THE CUBIC EXPERIMENT  
 02/12/1996 - 02/14/1999 FY00: -\$16 Total: \$458,582  
 Prin. Invest.: D BURROWS  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3489** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7833  
 A MULTIWAVELENGTH STUDY OF THE LOOP I SUPERBUBBLE  
 11/01/1996 - 10/31/1999 FY00: -\$150 Total: \$62,350  
 Prin. Invest.: D N BURROWS  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3654** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7834  
 PLANETARY HABITABILITY  
 03/25/1997 - 06/30/1999 FY00: \$0 Total: \$166,000  
 Prin. Invest.: D F KASTING  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 3801** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7835  
 COSMOLOGICAL GAMMA RAY BURST MODELS: SIGNATURES AND  
 11/27/1996 - 05/31/2000 FY00: \$0 Total: \$50,000  
 Prin. Invest.: P MESZAROS  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3856** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7836  
 ASSESSING THE IMPACT OF EXPANDING URBAN LAND USE USING REMOTE SENSING DATA & PHYSICALLY BASED SOIL  
 12/19/1996 - 12/14/2000 FY00: \$0 Total: \$362,320  
 Prin. Invest.: G W PETERSEN  
 Tech. Officer: GSFC/M J IMHOFF  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3970** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7837  
 USE OF ARABIDOPSIS TRANSPOSON MUTANTS IN THE STUDY  
 03/05/1997 - 02/28/2001 FY00: \$64,430 Total: \$470,187  
 Prin. Invest.: N V FEDOROFF  
 Tech. Officer: GSFC/M AVERNER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 4018** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7838  
 PROVIDES FUNDING FOR YEAR ONE/INCREMENTAL FOR YEAR TWO  
 02/28/1997 - 02/28/1999 FY00: \$0 Total: \$80,000  
 Prin. Invest.: C RUT  
 Tech. Officer: GSFC/D M LE VINE, GSFC/L L THOMPSON  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 4301 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7839**  
 A STUDY OF PLANETARY SYSTEMS AROUND NEUTRON STARS  
 04/09/1997 - 02/28/2001 FY00: \$57,000 Total: \$232,000  
*Prin. Invest.:* D WOLSZCZAN  
*Tech. Officer:* GSFC/D NAVA  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4553 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7840**  
 THE GLOBAL WATER CYCLE: EXTENSION ACROSS THE EART  
 06/12/1997 - 06/30/2001 FY00: \$736,470 Total: \$5,263,454  
*Prin. Invest.:* E J BARRON  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4826 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7841**  
 AN ASCA OBSERVATION OF MARKARIAN 6: COMPLEX ABSORP REGION  
 06/20/1997 - 06/30/2000 FY00: \$0 Total: \$32,000  
*Prin. Invest.:* W BRANDT  
*Tech. Officer:* GSFC/R PETRE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4840 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7842**  
 THE REGENERATING PROTOPLAST AS A SINGLE CELL MODEL IN PLANTS  
 06/26/1997 - 05/31/2001 FY00: \$133,613 Total: \$366,770  
*Prin. Invest.:* R CYR  
*Tech. Officer:* GSFC/M AVERNER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 5035 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7843**  
 COORDINATED ROCKET AND GROUND-BASED STUDIES OF HIGH-LAT-  
 ITUDE FINE-SCALE STRUCTURE IN ION/SODIUM..  
 04/19/1995 - 04/30/2000 FY00: \$0 Total: \$516,849  
*Prin. Invest.:* T J KANE  
*Tech. Officer:* GSFC/R H PLESS  
*CASE Category:* 13 - PHYSICS

**NAG 5 5065 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7844**  
 HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) FIRST YEAR OF FUNDING  
 FOR GRANT  
 05/03/1996 - 05/31/2000 FY00: \$0 Total: \$507,000  
*Prin. Invest.:* J J BEATTY  
*Tech. Officer:* GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5093 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7845**  
 RESEARCH IN X-RAY ASTRONOMY  
 11/22/1996 - 09/30/2000 FY00: \$0 Total: \$1,367,429  
*Prin. Invest.:* D BURROWS, G P GARMIRE  
*Tech. Officer:* GSFC/W GURKIN  
*CASE Category:* 13 - PHYSICS

**NAG 5 5136 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7846**  
 SPIRIT: STUDENT PROJECTS INVOLVING ROCKET INVESTIGATION TECH-  
 Niques  
 04/14/1997 - 04/13/2001 FY00: \$0 Total: \$35,000  
*Prin. Invest.:* J D MITCHELL  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5145 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7847**  
 CHARACTERIZATION OF SIGMA-0 BLOOMS AS CONSTRAINTS ON TOPEX  
 MICROWAVE RADIOMETER CALM WATER EMISSION  
 06/17/1997 - 06/30/1999 FY00: \$0 Total: \$41,546  
*Prin. Invest.:* N WHITE  
*Tech. Officer:* GSFC/D VANDEMARK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 5189 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7848**  
 PROJECT DROPPS: THE DISTRIBUTION AND ROLE OF PARTICLES IN THE  
 POLAR SUMMER MESOSPHERE  
 03/13/1998 - 12/31/2000 FY00: \$44,479 Total: \$168,596  
*Prin. Invest.:* J D MITCHELL  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5174 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7849**  
 VALIDATION AND PROMPT DISTRIBUTION OF ACCESS DATA FUNDING FOR  
 FIRST YEAR OF GRANT  
 03/09/1998 - 03/08/2001 FY00: \$52,880 Total: \$109,080  
*Prin. Invest.:* S COUTU  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5210 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7850**  
 COSMIC RAY ENERGETICS AND MASS (CREAM) COSMIC RAY ENERGETICS  
 AND MASS (CREAM)  
 09/22/1998 - 05/31/2000 FY00: \$0 Total: \$85,600  
*Prin. Invest.:* J J BEATTY  
*Tech. Officer:* WFF/B A MERRITT  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 5220 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7851**  
 GRANT NAG5-5220 - HIGH ENERGY ANTIMATTER TELESCOPE (HEAT) - PI  
 DR.JAMES BEATTY  
 03/16/1999 - 03/11/2002 FY00: \$171,000 Total: \$361,000  
*Prin. Invest.:* J J BEATTY  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5248 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7852**  
 COSMIC RAY ENERGETICS AND MASS (CREAM) COSMIC RAY ENERGETICS  
 AND MASS (CREAM)  
 03/12/2000 - 02/10/2002 FY00: \$144,000 Total: \$144,000  
*Prin. Invest.:* BEATTY  
*Tech. Officer:* GSFC/B MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5250 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7853**  
 FIRST YEAR OF THREE YEAR EFFORT FOR PI DR. STEPHANE COUTU  
 03/23/2000 - 02/10/2003 FY00: \$144,000 Total: \$144,000  
*Prin. Invest.:* S E COUTU  
*Tech. Officer:* WFF/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 5 5256 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7854**  
 MODIFICATION OF IONIZAITON PROPERTIES IN THE MIDDLE ATMOSPHERE  
 BY GRAVITY WAVES  
 03/20/2000 - 02/10/2003 FY00: \$247,400 Total: \$247,400  
*Prin. Invest.:* C L CROSKEY  
*Tech. Officer:* GSFC/W B JOHNSON  
*CASE Category:* 13 - PHYSICS

**NAG 5 5277** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7855**  
 RESEARCH IN X-RAY ASTRONOMY RESEARCH IN X-RAY ASTRONOMY  
 06/01/2000 - 05/15/2002 FY00: \$265,000 Total: \$265,000  
 Prin. Invest.: D N BURROWS, G P GARMIRE  
 Tech. Officer: GSFC/J C BRINTON  
 CASE Category: 13 - PHYSICS

**NAG 5 6023** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7856**  
 X-RAY MONITORING OF STRONG VARIABILITY IN THE ULTR NARROW-LINE  
 SEYFERT 1 GALAXY RX J0947.0+4721  
 08/21/1997 - 08/31/1999 FY00: \$0 Total: \$8,100  
 Prin. Invest.: W BRANDT  
 Tech. Officer: GSFC/R PETRE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6194** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7857**  
 - REMOTELY SENSED INDEX OF DEFORESTATION/URBANIZATION MODELS  
 08/28/1997 - 08/31/1999 FY00: \$0 Total: \$174,302  
 Prin. Invest.: T CARLSON  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6197** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7858**  
 DEVELOPMENT OF NANOTECHNOLOGY SENSORS FOR SPACE APPLIED  
 FALLING SPHERE FOR THE MEASUREMENT OF DENSITY  
 08/26/1997 - 12/31/1999 FY00: \$0 Total: \$137,105  
 Prin. Invest.: D L CROSKY  
 Tech. Officer: GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 6207** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7859**  
 MECHANISM OF LENGTH-OF-DAY VARIABILITY  
 08/01/1997 - 12/31/2000 FY00: \$42,632 Total: \$181,483  
 Prin. Invest.: S FELDSTEIN  
 Tech. Officer: GSFC/H FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6389** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7860**  
 MODELING THE AIR-SEA FLUXES OF CARBONYL SULFIDE AND CARBON  
 MONOXIDE USING REMOTELY SENSED DATA  
 10/17/1997 - 08/31/2001 FY00: \$40,831 Total: \$179,506  
 Prin. Invest.: R NAJJAR  
 Tech. Officer: GSFC/J A MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6396** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7861**  
 TWO-YEAR NASA FELLOWSHIP AT PENN STATE  
 10/24/1997 - 10/31/2000 FY00: \$0 Total: \$75,004  
 Prin. Invest.: D STAUFFER  
 Tech. Officer: GSFC/A NEGRI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6399** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7862**  
 THE GAS AND THE STARS OF INTERMEDIATE REDSHIFT GALAXIES (LTSA)  
 10/10/1997 - 10/14/2001 FY00: \$56,300 Total: \$225,294  
 Prin. Invest.: J CHARLTON  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6451** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7863**  
 EVALUATION AND INTERCOMPARISON OF THREE-DIMENSIONAL MARINE  
 CARBON CYCLE MODELS  
 10/24/1997 - 12/31/2000 FY00: \$79,155 Total: \$201,866  
 Prin. Invest.: R NAJJAR  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6656** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7864**  
 SPACE-TIME SCALING OF WATER TRANSFERS BETWEEN THE LAND  
 SURFACE AND THE LOWER ATMOSPHERE  
 12/04/1997 - 10/31/2000 FY00: \$0 Total: \$163,955  
 Prin. Invest.: A P BARROS  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6713** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7865**  
 PHASE COMPRESSED IMAGE DATA FOR BROAD-AREA LANDSCAPE  
 CHANGE ANALYSIS AND HARMONIZATION OF IMAGE  
 12/30/1997 - 12/31/2000 FY00: \$0 Total: \$87,500  
 Prin. Invest.: W MEYERS  
 Tech. Officer: GSFC/D WILLIAMS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6737** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7866**  
 THE STATISTICAL CONSULTING CENTER FOR ASTRONOMY (SCCA)  
 12/17/1997 - 12/31/2000 FY00: \$33,600 Total: \$97,886  
 Prin. Invest.: M AKRITAS  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6852** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7867**  
 AN X-RAY LONG LOOK AT THE BRIGHT SEYFERT 1 GALAXY MCG-6-30-15  
 01/13/1998 - 01/14/2001 FY00: \$0 Total: \$10,772  
 Prin. Invest.: W BRANDT  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6906** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7868**  
 IMPROVING THE GINGA ANALYSIS TOOLS  
 02/13/1998 - 01/31/2000 FY00: \$0 Total: \$20,100  
 Prin. Invest.: J NOUSEK  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6907** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7869**  
 SOFT X-RAY RADIATION FROM ISOLATED NEUTRON STARS  
 02/17/1998 - 07/31/2000 FY00: \$0 Total: \$87,600  
 Prin. Invest.: G PAVLOV  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7017** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7870**  
 NEUTRON STAR ATMOSPHERES - ATP  
 02/17/1998 - 02/14/2001 FY00: \$95,142 Total: \$288,142  
 Prin. Invest.: G G PAVLOV  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7121 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7871**  
 MULTIFREQUENCY MONITORING OF MRK 501  
 04/13/1998 - 04/14/2000 FY00: \$0 Total: \$8,875  
*Prin. Invest.:* R M SAMBRUNA  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7256 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7872**  
 BROAD-BAND SPECTRA AND VARIABILITY OF THE BRIGHT N ARROW-LINE  
 SEYFERT1 GALAXY H0707-495 & COORDI  
 05/01/1998 - 06/30/2000 FY00: \$0 Total: \$21,768  
*Prin. Invest.:* W N BRANDT  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7276 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7873**  
 SIMULTANEOUS XTE AND AXAF OBSERVATIONS OF THE CIRC INUS  
 GALAXY; MULTIFREQUENCY MONITORING O  
 04/15/1998 - 04/14/2001 FY00: \$0 Total: \$11,554  
*Prin. Invest.:* G CHARTAS  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7282 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7874**  
 XTE PROPOSAL - COORDINATED AXAF/RXTE OBSERVATIONS OF NGC  
 3783  
 04/27/1998 - 11/30/2000 FY00: \$0 Total: \$6,286  
*Prin. Invest.:* W N BRANDT  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7443 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7875**  
 INVESTIGATING MESOSCALE CONVECTIVE SYSTEMS & TROPICAL  
 EASTERLY WAVES IN CENTRAL & WEST AFRICA USING  
 06/12/1998 - 06/14/2001 FY00: \$48,600 Total: \$140,600  
*Prin. Invest.:* G JENKINS  
*Tech. Officer:* GSFC/R W LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7547 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7876**  
 SATELLITE TRACKING AND RAINFALL ESTIMATION FOR SHORT-TERM,  
 HEAVILY PRECIPITATING STORM EVENTS  
 06/22/1998 - 06/30/2001 FY00: \$0 Total: \$235,764  
*Prin. Invest.:* J L EVANS  
*Tech. Officer:* GSFC/E T ENGMAN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7646 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7877**  
 ONE YEAR FUNDING FOR 'TECTONIC CONTROLS ON LANDSCAPE  
 DEVELOPMENT...'  
 08/27/1998 - 02/29/2000 FY00: \$0 Total: \$84,000  
*Prin. Invest.:* D BURBANK  
*Tech. Officer:* GSFC/H FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7847 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7878**  
 PROPOSAL TO DEVELOP AN EVALUATION PLAN OF NASA'S EARTH SCIEN-  
 CE INFORMATION PARTNERS' (ESIP  
 08/27/1998 - 10/31/2000 FY00: \$0 Total: \$156,000  
*Prin. Invest.:* A K GLASMEIER, NONE  
*Tech. Officer:* GSFC/M MAIDEN  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7733 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7879**  
 A HARD X-RAY SURVEY OF RADIO-LOUD AGNS  
 09/30/1998 - 12/31/1999 FY00: \$0 Total: \$9,800  
*Prin. Invest.:* M V FIUPPENKO  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7776 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7880**  
 REMOTE SENSING OF WEST ANTARCTIC ICE SHEET SURFACE MELTING:  
 RECOGNITION, CONTROLS, AND SIGNIFICANCE  
 10/27/1998 - 12/31/2001 FY00: \$11,091 Total: \$20,010  
*Prin. Invest.:* R ALLEY  
*Tech. Officer:* GSFC/S GOGINENI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7781 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7881**  
 MEASUREMENT AND ANALYSIS OF THE SPATIAL AND TEMPORAL VARI-  
 ABILITY OF OROGRAPHIC PRECIPITATION IN  
 11/13/1998 - 10/31/1999 FY00: \$0 Total: \$160,000  
*Prin. Invest.:* A P BARROS  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7900 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7882**  
 NEW ASCA AND ROSAT OBSERVATIONS OF ROTATION-POWERED  
 PULSARS - ADP 98  
 01/06/1999 - 01/31/2000 FY00: \$0 Total: \$14,272  
*Prin. Invest.:* G PAVLOV  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7925 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7883**  
 HIGH-ENERGY ABSORPTION IN BLAZARS: PROBING THE INNER JET ENVI-  
 RONMENT (ADP 98)  
 01/03/1999 - 12/31/2000 FY00: \$39,609 Total: \$77,754  
*Prin. Invest.:* R M SAMBRUNA  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8005 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7884**  
 A SMALL, LIGHTWEIGHT RADIOMETER TO IMPROVE THE TEMPORAL  
 SAMPLING OF RAINFALL  
 01/12/1999 - 01/14/2001 FY00: \$122,068 Total: \$215,817  
*Prin. Invest.:* C S RUF  
*Tech. Officer:* GSFC/C D KUMMEROW  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8107 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7885**  
 AXAF, XMM AND ASTRO-E INVESTIGATIONS OF SEYFERT/QUASAR  
 CENTRAL ENGINES: EXPLORING THE ENVIRONMENTS  
 02/05/1999 - 02/14/2001 FY00: \$64,900 Total: \$123,800  
*Prin. Invest.:* W N BRANDT  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8389 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7886**  
 A METASTABLE ASSOCIATED ABSORBER IN THE BROAD-LINE RADIO  
 GALAXY ARP 102B (ADP 98)  
 03/02/1999 - 02/28/2001 FY00: \$0 Total: \$19,942  
*Prin. Invest.:* M ERACELOUS  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8401** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7887**  
 SWIFT - PHASE A CONCEPT STUDY  
 03/05/1999 - 08/31/2000 FY00: \$480,439 Total: \$580,439  
 Prin. Invest.: J NOUSEK  
 Tech. Officer: GSFC/L HILLARD  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8422** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7888**  
 2-RAY STUDIES OF YOUNG STELLAR OBJECTS (LTSA 98)  
 04/01/1999 - 03/31/2001 FY00: \$27,330 Total: \$53,117  
 Prin. Invest.: E D FEIGELSON  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8710** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7889**  
 METHANE & HYDROGEN IN EARTH'S PRIMITIVE ATMOSPHERE  
 08/02/1999 - 09/30/2000 FY00: \$0 Total: \$79,379  
 Prin. Invest.: J F KASTING  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8735** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7890**  
 MERGING MODELS AND OBSERVATIONS OF THE ATMOSPHERIC  
 BOUNDARY LAYER'S MESOSCALE STRUCTURE DURING SGP-9  
 08/17/1999 - 08/14/2001 FY00: \$58,690 Total: \$117,240  
 Prin. Invest.: D R STAUFFER  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8738** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7891**  
 SPACE-TIME DYNAMICS OF SOIL MOISTURE & TEMPERATURE -SCALE  
 ISSUES  
 08/17/1999 - 08/14/2001 FY00: \$23,667 Total: \$47,333  
 Prin. Invest.: D MILLER  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8795** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7892**  
 "THIN FILM TRANSISTOR ADDRESSING ARRAYS FOR MICRO- WELL  
 GAMMA RAY DETECTORS"  
 09/09/1999 - 03/31/2000 FY00: \$0 Total: \$30,000  
 Prin. Invest.: T JACKSON  
 Tech. Officer: GSFC/S HUNTER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9039** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7893**  
 TECTONIC-CLIMATE INTERACTIONS IN ACTION OROGENIC BELTS: QUAN-  
 TIFICATION OF DYNAMIC TOPOGRAPHY WITH S  
 02/10/2000 - 02/14/2001 FY00: \$91,500 Total: \$91,500  
 Prin. Invest.: D W BURBANK  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9089** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7894**  
 SEARCH FOR NEW EVIDENCE IN PRE-2.0 GA PALEOSOLS & SHALES FOR  
 THE EARLY EVOLUTION OF ATMOSPHERIC OXYG  
 02/17/2000 - 01/31/2001 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: H OHMOTO  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9133** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7895**  
 CONSTRAINING THE STRUCTURE OF THE CENTRAL ENGINE OF RADIO-  
 LOUD AGN ADP99  
 02/28/2000 - 02/28/2001 FY00: \$29,665 Total: \$29,665  
 Prin. Invest.: R M SAMBRUNA  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9134** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7896**  
 INTENSIVE RXTE MONITORING OF THE TEV BLAZAR MRK501 (ADP 99)  
 02/28/2000 - 02/28/2001 FY00: \$23,678 Total: \$23,678  
 Prin. Invest.: R M SAMBRUNA  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9153** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7897**  
 THEORETICAL STUDIES OF GAMMA-RAY BURSTS WITH SWIFT  
 03/02/2000 - 06/30/2001 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: P I MESZAROS  
 Tech. Officer: GSFC/N GEHRELS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9192** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7898**  
 PHYSICS OF GAMMA RAY BURST SOURCES  
 03/08/2000 - 03/14/2001 FY00: \$104,457 Total: \$104,457  
 Prin. Invest.: P MESZAROS  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9377** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7899**  
 THE ORIGINS AND PROPERTIES OF INTRACLUSTER STARS (LTSA 99)  
 04/05/2000 - 03/31/2001 FY00: \$108,056 Total: \$108,056  
 Prin. Invest.: R CIARDULLO  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9586** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7900**  
 A RADICAL-VELOCITY ASSESSMENT OF CANDIDATE SIM GRID STARS FOR  
 ASTROMETIC STABILITY, USING  
 05/10/2000 - 05/14/2001 FY00: \$35,000 Total: \$35,000  
 Prin. Invest.: R A WADE  
 Tech. Officer: GSFC/P CRANE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9587** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7901**  
 "THIN FILM TRANSISTOR ADDRESSING ARRAYS FOR MICRO- WELL  
 GAMMA RAY DETECTORS"  
 05/12/2000 - 05/14/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: T JACKSON  
 Tech. Officer: GSFC/S D HUNTER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9918** PENNSYLVANIA STATE UNIV. - UNIV. PARK **7902**  
 AN X-RAY STUDY OF THE MOST DISTANT QUASARS FROM THE SLOAN  
 DIGITAL SKY SURVEY  
 09/05/2000 - 09/14/2001 FY00: \$14,100 Total: \$14,100  
 Prin. Invest.: W N BRANDT  
 Tech. Officer: GSFC/R F MUSKOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9924 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7903**  
 A DETAILED STUDY OF TWO NLS1  
 09/05/2000 - 09/14/2001 FY00: \$6,964 Total: \$6,964  
 Prin. Invest.: W N BRANDT  
 Tech. Officer: GSFC/P M ATKINS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9932 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7904**  
 XMM SPECTROSCOPY OF THE X-RAY DETECTED BROAD ABSORPTION  
 LINE QSO CSO 755  
 09/07/2000 - 09/14/2001 FY00: \$17,000 Total: \$17,000  
 Prin. Invest.: W N BRANDT  
 Tech. Officer: GSFC/D F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9933 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7905**  
 XMM STUDY OF THE BRIGHT ULTRASOFT NARROW-LINE QUASAR NAB  
 0205+024  
 09/07/2000 - 09/14/2001 FY00: \$5,945 Total: \$5,945  
 Prin. Invest.: W N BRANDT  
 Tech. Officer: GSFC/D F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9934 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7906**  
 CONSTRAINTS ON HO FROM TIME-DELAY MEASUREMENTS OF  
 PG1115+080  
 09/06/2000 - 09/14/2001 FY00: \$20,600 Total: \$20,600  
 Prin. Invest.: G CHARTAS  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9938 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7907**  
 SPECTRUM AND PULSATIONS OF THE NEUTRON STAR CANDIDATE RX  
 J0002+6246  
 09/06/2000 - 09/14/2001 FY00: \$5,991 Total: \$5,991  
 Prin. Invest.: G PAVLOV  
 Tech. Officer: GSFC/R F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9939 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7908**  
 AN XMM STUDY OF THE BRIGHT NARROW-LINE SEYFERT 1 GALAXY  
 ARAKELIAN 564  
 09/06/2000 - 09/14/2001 FY00: \$14,400 Total: \$14,400  
 Prin. Invest.: W BRANDT  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9940 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7909**  
 XMM SPECTROSCOPY OF MARKARIAN 8: INTRINSIC ABSORPTION AND  
 BLACK HOLE REGION  
 09/06/2000 - 09/14/2001 FY00: \$15,300 Total: \$15,300  
 Prin. Invest.: W N BRANDT  
 Tech. Officer: GSFC/R F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9949 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7910**  
 THROUGH BAL QUASARS BRIGHTLY  
 09/07/2000 - 08/31/2001 FY00: \$18,000 Total: \$18,000  
 Prin. Invest.: G CHARTAS  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9970 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7911**  
 PROBING CLASS O PROTOSTARS WITH HARD X-RAYS - OMC2 -3  
 REGION—  
 09/13/2000 - 09/14/2001 FY00: \$22,300 Total: \$22,300  
 Prin. Invest.: Y TSUBOI  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9976 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7912**  
 RGS ABUNDANCE MEASUREMENT OF WOLF-RAYET STELLAR WIND  
 09/12/2000 - 09/14/2001 FY00: \$17,000 Total: \$17,000  
 Prin. Invest.: Y MAEDA  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9982 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7913**  
 STRUCTURE OF THE ACCRETION FLOWS IN BROAD-LINE RADIO GALAXIES  
 09/13/2000 - 09/14/2001 FY00: \$21,000 Total: \$21,000  
 Prin. Invest.: M ERACLEOUS  
 Tech. Officer: GSFC/R MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 10050 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7914**  
 MERGING MODELS AND OBSERVATIONS OF THE ATMOSPHERIC  
 BOUNDARY LAYER'S MESOSCALE STRUCTURE DURING S  
 09/28/2000 - 05/31/2002 FY00: \$41,578 Total: \$41,578  
 Prin. Invest.: K DAVIS  
 Tech. Officer: GSFC/E ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1272 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7915**  
 GRAVITATIONAL EFFECT ON THE DEVELOPMENT OF LASER WELDPOL  
 AND SOLIDIFICATION MICROSTRUCTURE  
 05/09/1996 - 05/22/2001 FY00: \$150,000 Total: \$600,000  
 Prin. Invest.: J SINGH  
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1286 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7916**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY00: \$0 Total: \$34,303  
 Prin. Invest.: G SUBRAMANIAM  
 Tech. Officer: MSFC/JF DOWDY, MSFC/J R PRUITT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1452 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7917**  
 R/S GRAVITATIONAL EFFECTS ON DISTORTION IN SINTERING  
 02/01/1998 - 01/31/2002 FY00: \$210,000 Total: \$416,250  
 Prin. Invest.: R M GERMAN  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1530 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7918**  
 NUMERICAL STUDY OF THE ROLE OF SHALLOW CONVECTION ON MOIS-  
 TURE TRANSPORT AND CLIMATE  
 05/06/1998 - 04/30/2001 FY00: \$140,000 Total: \$423,849  
 Prin. Invest.: N L SEAMAN  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE



## NASA'S UNIVERSITY PROGRAM

## PENNSYLVANIA

**NAG 8 1732** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7919  
 DEMONSTRATION OF THROTTLEABLE LOX/H @ INJECTOR CONCEPTS  
 07/01/2000 - 06/30/2001 FY00: \$98,000 Total: \$98,000  
 Prin. Invest.: R J SANTORO, R D WOODWARD  
 Tech. Officer: MSFC/W ANDERSON  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 1143** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7920  
 FLAME SPREADING & VIOLENT ENERGY RELEASE PHENOMENA OF  
 ALUMINUM TUBING BURNING IN GASEOUS ENVIRONMEN  
 09/08/1999 - 06/30/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: K K KUO  
 Tech. Officer: JSC/J M STOLTZFUS  
 CASE Category: 12 - CHEMISTRY

**NAG 9 1173** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7921  
 FACILITATED BLOOD PRESSURE CONTROL  
 09/22/1999 - 09/30/2002 FY00: \$48,082 Total: \$148,082  
 Prin. Invest.: J A PAWELCZYK  
 Tech. Officer: JSC/C LLOYD  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG10 187** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7922  
 IMPROVING LIGHTNING FORECASTS FOR THE SPACE PROGRAM  
 03/26/1996 - 09/30/1999 FY00: -\$1,056 Total: \$72,344  
 Prin. Invest.: G S FORBES, S HORRART, NONE  
 Tech. Officer: KSC/L MAIER, KSC/J MADURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG10 205** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7923  
 STUDY "GRAVITY EFFECTS ON SEEDLING MORPHOGENESIS"  
 01/28/1997 - 10/31/1999 FY00: \$0 Total: \$274,368  
 Prin. Invest.: D J COSGROVE  
 Tech. Officer: KSC/W M KNOTT  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAS 5 00024** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7924  
 CONTRACTOR WILL PROVIDE 3-DIMENSIONAL FIELDS OF ATMOSPHERIC  
 TRACE GASES.  
 11/30/1999 - 11/29/2000 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: W H BRUNE  
 Tech. Officer: GSFC/J F GLEASON, GSFC/E H HILSENATH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 00136** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7925  
 SWIFT ULTRAVIOLET & OPTICAL TELESCOPES X-RAY TELESCOPE,  
 GROUND STATION SYSTEM  
 04/27/2000 - 12/31/2006 FY00: \$3,906,000 Total: \$3,906,000  
 Prin. Invest.: J A NOUSEK  
 Tech. Officer: GSFC/R BORELLI  
 CASE Category: 11 - ASTRONOMY

**NAS 8 38252** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7926  
 AXAF CCD IMAGING SPECTROMETER  
 06/27/1990 - 04/01/2001 FY00: \$2,169,000 Total: \$8,669,000  
 Prin. Invest.: G P GARMIRE  
 Tech. Officer: MSFC/M E ROSENTHAL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAS 8 40890** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7927  
 R/S "EXPERIMENTAL & ANALYTICAL MODELING OF THE ROCKET EJECTOR  
 MODE"  
 09/04/1996 - 03/15/2001 FY00: \$303,820 Total: \$1,136,163  
 Prin. Invest.: S PAL, R J SANTORO  
 Tech. Officer: MSFC/J HUETER/J TURNER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAS 9 99095** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7928  
 FOOT REACTION FORCES DURING SPACE FLIGHT  
 05/01/1999 - 04/30/2002 FY00: \$290,000 Total: \$440,515  
 Prin. Invest.: P CAVANAGH  
 Tech. Officer: JSC/M KAMMAN  
 CASE Category: 56 - MEDICAL

**NCC 1 249** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7929  
 DAMAGE MONITORING AND LIFE EXTENDING CONTROL OF AIRCRAFT  
 STRUCTURES  
 01/17/1997 - 08/31/1999 FY00: -\$1 Total: \$121,909  
 Prin. Invest.: A RAY  
 Tech. Officer: LARC/S M JOSHI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 300** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7930  
 HOX MEASUREMENTS IN PEM TROPOSPHERIC B WITH THE AIRBORNE  
 TROPOSPHERIC HYDROGEN OXIDES SENSOR  
 07/07/1998 - 05/31/2001 FY00: \$280,140 Total: \$720,140  
 Prin. Invest.: W H BRUNE  
 Tech. Officer: LARC/J M HOELL, JR., LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 329** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7931  
 FUZZY STRUCTURES ANALYSIS IN NASTRAN  
 03/05/1999 - 12/31/1999 FY00: -\$1 Total: \$35,645  
 Prin. Invest.: V W SPARROW  
 Tech. Officer: LARC/R D BUEHRLE, LARC/J H ROBINSON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 382** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7932  
 NASTRAN DMAP FUZZY STRUCTURES PROGRAMMING  
 03/15/2000 - 09/30/2000 FY00: \$54,071 Total: \$54,071  
 Prin. Invest.: V W SPARROW  
 Tech. Officer: LARC/R D BUEHRLE/J H ROBINSON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 406** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7933  
 MODELING THE NOISE OF ARBITRARY, MANEUVERING ROTORS  
 09/07/2000 - 08/31/2003 FY00: \$62,130 Total: \$62,130  
 Prin. Invest.: K S BRENTNER  
 Tech. Officer: LARC/H E JONES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 414** PENNSYLVANIA STATE UNIV. - UNIV. PARK 7934  
 TRACE-P OH & HO2 MEAS'S W/AIRBORNE TROPOSPHERIC HYDROGEN  
 OXIDES (ATHOS) ON THE NASA DC-8  
 09/25/2000 - 06/30/2002 FY00: \$283,132 Total: \$283,132  
 Prin. Invest.: W H BRUNE  
 Tech. Officer: LARC/J L RAPER, SR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 943 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7935**  
 PENN STATE ROTORCRAFT CENTER OF EXCELLENCE  
 02/26/1996 - 12/31/2000 FY00: \$366,111 Total: \$1,962,492  
*Prin. Invest.:* F C SMITH, L N LONG  
*Tech. Officer:* ARC/Y H YU, ARC/J M DAVIS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 1057 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7936**  
 CREATING THE PENN STATE ASTROBIOLOGY RESEARCH CENT ER  
 09/17/1998 - 06/30/2003 FY00: \$912,600 Total: \$2,019,686  
*Prin. Invest.:* H OHMOTO  
*Tech. Officer:* ARC/R A GRYMES, ARC/W W DOLCI  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 2 1122 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7937**  
 A NOVEL OXIDATION-RESISTANT THERMAL PROTECTION MAT ERIAL  
 06/07/1999 - 08/31/2001 FY00: \$41,780 Total: \$71,820  
*Prin. Invest.:* L R RADOVIC  
*Tech. Officer:* ARC/C E JOHNSON, ARC/M D REZIN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 2 5307 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7938**  
 DETERMINING THE EFFECT OF CARBON DIOXIDE CLOUDS ON MARTIAN  
 PALEOCLIMATE  
 02/11/1999 - 08/31/2000 FY00: \$23,000 Total: \$83,000  
*Prin. Invest.:* J F KASTING  
*Tech. Officer:* ARC/R E YOUNG, ARC/R M HABERLE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 5341 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7939**  
 LIFE IN EXTREME ENVIRONMENTS RESEARCH #2  
 08/05/1999 - 07/31/2000 FY00: \$0 Total: \$15,000  
*Prin. Invest.:* C FISHER  
*Tech. Officer:* ARC/M T FLYNN, ARC/J HINES  
*CASE Category:* 33 - OCEANOGRAPHY

**NCC 3 597 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7940**  
 MULTIAXIAL DEFORMATION STUDY OF HIGH TEMPERATURE METALLIC  
 MATERIALS  
 01/28/1998 - 11/30/2000 FY00: \$103,276 Total: \$238,796  
*Prin. Invest.:* C J LISSENOEN  
*Tech. Officer:* GRC/B A LERCH, GRC/J R ELLIS  
*CASE Category:* 46 - MECHANICAL ENGR

**NCC 3 718 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7941**  
 COMPUTATIONAL AND EXPERIMENTAL STUDY OF ENERGETIC MATERIALS  
 IN A COUNTERLOW MICROGRAVITY ENVIRONMENT  
 06/28/1999 - 06/09/2003 FY00: \$19,555 Total: \$43,182  
*Prin. Invest.:* R A YETTER  
*Tech. Officer:* GRC/D L UBRAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 3 767 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7942**  
 LOW CONDUCTIVE THERMAL BARRIER COATINGS PRODUCED BY ION  
 BEAM ASSISTED EB-PVD WITH CONTROLLED POROSITY  
 02/01/2000 - 01/31/2003 FY00: \$75,000 Total: \$75,000  
*Prin. Invest.:* D SINGH  
*Tech. Officer:* GRC/J ELDRIDGE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 5 432 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7943**  
 LUAV II: LEARNING USING ERAST AIRCRAFT MISSIONS FOR UNDER-  
 STANDING REMOTE SENSING, ATMOSPHERIC SAMP  
 09/20/1999 - 09/30/2001 FY00: \$163,647 Total: \$343,647  
*Prin. Invest.:* D L GRABOWSKI  
*Tech. Officer:* GSFC/R E GABRYS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 508 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7944**  
 NASA/GSFC COOPERATIVE ENTERPRISE, PROP # 3552  
 08/15/2000 - 08/14/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* J E FREDLEY  
*Tech. Officer:* GSFC/M HAGOPIAN  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 1 52109 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7945**  
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)  
 06/15/1995 - 06/30/1999 FY00: -\$5,327 Total: \$82,674  
*Prin. Invest.:* E C SMITH, A T HOWARD  
*Tech. Officer:* LARC/M W NIXON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 1 52191 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7946**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/20/1998 - 06/30/2001 FY00: \$22,001 Total: \$54,001  
*Prin. Invest.:* P K MCLAUGHLIN  
*Tech. Officer:* LARC/T NORUM, LARC/B J JANSEN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 1 52249 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7947**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 08/01/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  
*Prin. Invest.:* M D LATORELLA  
*Tech. Officer:* LARC/M G BALLIN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 3 52359 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7948**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 07/15/1999 - 08/14/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* K W WANG  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 3 52368 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7949**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 06/19/2000 - 08/14/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* D A SANTAVICCA  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 5 67 PENNSYLVANIA STATE UNIV. - UNIV. PARK 7950**  
 GSRP TRAINING GRANT FOR BECKY J. REIFENSTAHL TITLE: AN INDIC-  
 ATOR OF THE STATE OF ENSO APPLIED TO  
 05/28/1998 - 08/14/1999 FY00: -\$2,930 Total: \$19,070  
*Prin. Invest.:* A M CARLETON  
*Tech. Officer:* GSFC/G SOFFEN  
*CASE Category:* 11 - ASTRONOMY

<b>NGT 5 30060</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7951</b> IMPROVING SHORT-TERM QUANTITATIVE PRECIPITATION FO RECASTING IN MOUNTAINOUS REGIONS 10/18/1997 - 08/31/2000      FY00: \$0      Total: \$66,000 Prin. Invest.: A BARROS Tech. Officer: GSFC/M WEI CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NGT 5 50112</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7959</b> GRADUATE STUDENT RESEARCH PROGRAM: STUDENT NAME: 09/04/1997 - 08/14/1999      FY00: -\$3,359      Total: \$40,641 Prin. Invest.: C CROYSKEY Tech. Officer: HQ/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 30139</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7952</b> STUDIES OF OH AND HO2 IN THE PRESENCE OF CIRRUS CLOUDS NEAR THE TROPopause 08/27/1998 - 08/31/2001      FY00: \$22,000      Total: \$66,000 Prin. Invest.: BRUNES, W SIMPAS Tech. Officer: HQ/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NGT 5 50147</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7960</b> AN INVESTIGATION OF COMPOSTING PLANT AND HUMAN WAS OLOGICAL LIFE SUPPORT SYSTEM (CELSS) 09/11/1997 - 07/31/1999      FY00: -\$3,036      Total: \$40,964 Prin. Invest.: S MCCLINTOCK Tech. Officer: HQ/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 30171</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7953</b> INTEGRATED SATELLITE, MODEL, AND FIELD-BASED STUDI ES OF CONTROLSON THE EXTENT OF SURFACE MELTING I 09/04/1998 - 08/31/2001      FY00: \$22,000      Total: \$66,000 Prin. Invest.: R B ALLEY, B DAS Tech. Officer: GSFC/M Y WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NGT 5 50178</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7961</b> AN INVESTIGATION OF CARBON DIOXIDE FLUX MEASUREMEN TS IN VOLCANIC & GEOTHERMAL SYSTEMS/GSRP:WERNER C 10/09/1997 - 08/31/2000      FY00: \$0      Total: \$66,000 Prin. Invest.: S BRANTLEY Tech. Officer: HQ/L SMITH CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 30193</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7954</b> EDDY CORRELATION MEASUREMENT OF CO2 FLUX IN VOLCAN IC-HYDRO- THERMAL ENVIRONMENTS SYS/STUDENT J. LEWIC 08/19/1999 - 08/31/2001      FY00: \$16,668      Total: \$38,668 Prin. Invest.: S BRANTLEY Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NGT 5 50236</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7962</b> GALAXY DISK EVOLUTION_(STUDENT: DAVID ANDERSEN) 05/27/1999 - 06/30/2001      FY00: \$22,000      Total: \$44,000 Prin. Invest.: M BERSHADY Tech. Officer: GSFC/L SMITH CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 30208</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7955</b> UNDERSTANDING HIGH TROPICAL CIRRUS/STUDENT: MATTHEW T. BOEHM 08/18/1999 - 08/31/2001      FY00: \$22,000      Total: \$44,000 Prin. Invest.: J VERLINDE Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NGT 5 50247</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7963</b> DEEP OBSERVATIONS WITH NASA'S CHANDRA X-RAY OBSERV ATORY: RESOLVING THE DISCRETE SOURCES OF THE COS 06/02/1999 - 06/30/2001      FY00: \$22,000      Total: \$44,000 Prin. Invest.: N BRANDT Tech. Officer: GSFC/L SMITH CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 30224</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7956</b> A UNIFIED DATABASE MODEL FOR THE EXPLORATION AND ANALYSIS OF SPATIOTEMPORAL ENVIRONMENTAL 08/14/2000 - 08/31/2001      FY00: \$22,000      Total: \$22,000 Prin. Invest.: D PEUQUET Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NGT 5 50272</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7964</b> AOTF SPECTROMETER SYSTEM FOR THE REMOTE DETECTION OF PLANT CANOPY NUTRIENT STRESSES IN A NASA CELSS/ 09/08/1999 - 10/31/2000      FY00: \$0      Total: \$22,000 Prin. Invest.: P N WALKER Tech. Officer: GSFC/L SMITH CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 40064</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7957</b> SUPPORT TO PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM. 02/25/1997 - 01/31/2001      FY00: \$492,500      Total: \$1,865,000 Prin. Invest.: R DEVON Tech. Officer: HQ/J DASCH CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NGT 5 50277</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7965</b> PEERING THROUGH THE CLOUDS: ABSORPTION STUDIES OF LUMINOUS ACTIVE GALAXIES WITH THE NEW GENERA 06/20/2000 - 07/31/2001      FY00: \$22,000      Total: \$22,000 Prin. Invest.: W BRANDT Tech. Officer: GSFC/L K SMITH CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 50049</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7958</b> THE THREE DIMENSIONAL STRUCTURE OF THE HOT INTERSTELLAR 07/17/1997 - 08/14/1999      FY00: -\$1,085      Total: \$42,915 Prin. Invest.: D BURROWS Tech. Officer: GSFC/A NURRIDIN CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NGT 5 50296</b> <b>PENNSYLVANIA STATE UNIV. - UNIV. PARK</b> <b>7966</b> COSMIC RAY ENERGETICS AND MASS BALLOON EXPERIMENT STUDENT: ROBERT KILLOREN 06/26/2000 - 07/31/2001      FY00: \$22,000      Total: \$22,000 Prin. Invest.: S COUTU Tech. Officer: GSFC/L SMITH CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 52856**      **PENNSYLVANIA STATE UNIV. - UNIV. PARK**      **7967**  
 ADVANCED SPACE PROPULSION USING ANTIMATTER  
 07/01/1998 - 08/14/2001      FY00: \$22,000      Total: \$66,000  
*Prin. Invest.:* G A SMITH  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 8 52876**      **PENNSYLVANIA STATE UNIV. - UNIV. PARK**      **7968**  
 ADVANCED SPACE PROPULSION USING ANTIMATTER, (GSRP)  
 08/13/1998 - 08/14/2001      FY00: \$22,000      Total: \$44,000  
*Prin. Invest.:* G A SMITH  
*Tech. Officer:* MSFC/J DOWDY  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2424**      **PHIL COLLEGE OF PHARMACY & SCIENCE**      **7969**  
 IN VIVO EVALUATION OF A NOVEL AND IMPROVED INSTRUMENT FOR  
 OBJECTIVE EVALUATION OF OPHTHALMIC LENS  
 05/15/2000 - 04/20/2001      FY00: \$49,872      Total: \$49,872  
*Prin. Invest.:* D DUBLIN  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 8649**      **TEMPLE UNIVERSITY**      **7970**  
 TO DEVELOP A PROTOTYPE AUTOMATED NETWORK FAULT DIAGNOSIS  
 SYSTEM FOR A MULTI-CAST BASED IP NETWORK  
 07/28/1999 - 01/31/2001      FY00: \$0      Total: \$59,967  
*Prin. Invest.:* S K BISWAS  
*Tech. Officer:* GSFC/B C DRAKE  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NAG 9 1023**      **THOMAS JEFFERSON UNIVERSITY**      **7971**  
 FACTORS MODULATING RADIATION INDUCED G2-DELAYS  
 07/01/1998 - 06/30/2001      FY00: \$223,962      Total: \$507,924  
*Prin. Invest.:* C ILIAKIS  
*Tech. Officer:* JSC/F A CUCINOTTA  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 2058**      **UNIVERSITY OF PENNSYLVANIA**      **7972**  
 PHYSICS OF COLLOIDS IN SPACE COMBUSTION OF UNCONFINED  
 DROPLET CLUSTERS IN MICRO  
 07/30/1997 - 06/24/2002      FY00: \$0      Total: \$630,000  
*Prin. Invest.:* D A WEITZ, P N PUSEY  
*Tech. Officer:* GRC/B S SIGNH  
*CASE Category:* 13 - PHYSICS

**NAG 3 2111**      **UNIVERSITY OF PENNSYLVANIA**      **7973**  
 ENGINEERING OF NOVEL BIOCOLLOID SUSPENSIONS ENGINEERING OF  
 NOVEL BIOCOLLOID SUSPENSIONS  
 01/13/1998 - 08/30/2000      FY00: \$0      Total: \$102,533  
*Prin. Invest.:* D A HAMMER  
*Tech. Officer:* GRC/D GRIFFIN  
*CASE Category:* 43 - CHEMICAL ENGR

**NAG 3 2172**      **UNIVERSITY OF PENNSYLVANIA**      **7974**  
 COLLOIDAL ASSEMBLY IN ENTROPICALLY DRIVEN LOW-VOLUME FRACTION  
 BINARY PARTICLE SUSPENSION  
 08/08/1998 - 02/28/2002      FY00: \$188,000      Total: \$421,991  
*Prin. Invest.:* A G YODH  
*Tech. Officer:* GRC/R A WILKINSEN  
*CASE Category:* 13 - PHYSICS

**NAG 3 2417**      **UNIVERSITY OF PENNSYLVANIA**      **7975**  
 ENGINEERING NOVEL BIOCOLLOID SUSPENSIONS ENGINEERING NOVEL  
 BIOCOLLOID SUSPENSIONS  
 05/08/2000 - 11/30/2003      FY00: \$75,000      Total: \$75,000  
*Prin. Invest.:* D A HAMMER  
*Tech. Officer:* GRC/D W GRIFFIN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 3990**      **UNIVERSITY OF PENNSYLVANIA**      **7976**  
 PERFORMANCE ASSESSMENT USING DYNAMIC STIMULATION ANALYSIS  
 FOR IVA AND EVA  
 02/26/1997 - 02/28/2000      FY00: \$0      Total: \$625,699  
*Prin. Invest.:* N I BADLER  
*Tech. Officer:* GSFC/J ELLISON  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 8767**      **UNIVERSITY OF PENNSYLVANIA**      **7977**  
 COUPLING COMPUTER VISION AND ASTRONAUT PERFORMANCE FOR  
 MULTI-PERSON MODELING AND ANALYSIS  
 08/25/1999 - 08/31/2000      FY00: \$157,606      Total: \$208,856  
*Prin. Invest.:* D N METAXAS  
*Tech. Officer:* GSFC/R CROUCH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9194**      **UNIVERSITY OF PENNSYLVANIA**      **7978**  
 MICROWAVE FOREGROUNDS AND THEIR POLARIZATION (PI TRANSF. INST  
 ADV STUDIES NAG5-6034)  
 03/08/2000 - 09/30/2001      FY00: \$156,363      Total: \$156,363  
*Prin. Invest.:* M TEGMARK  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9229**      **UNIVERSITY OF PENNSYLVANIA**      **7979**  
 BLAST: A BALLOON-BORNE LARGE-APERTURE SUB-MILLIMETER TELE-  
 SCOPE - A COMPREHENSIVE PLAN FOR GALAXY  
 03/20/2000 - 03/30/2001      FY00: \$311,000      Total: \$311,000  
*Prin. Invest.:* M DEVLIN  
*Tech. Officer:* GSFC/G STRINGFELLOW  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9241**      **UNIVERSITY OF PENNSYLVANIA**      **7980**  
 SELF-HEALING OF CARBON NANOTUBES  
 03/10/2000 - 03/14/2001      FY00: \$22,190      Total: \$22,190  
*Prin. Invest.:* D LUZZI  
*Tech. Officer:* GSFC/H SHAW  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 8 1350**      **UNIVERSITY OF PENNSYLVANIA**      **7981**  
 FOR RESEARCH ENTITLED: QUANTITATIVE ANALYSIS OF INTERACTIONS  
 DURING MEMBRANE PROTEIN CRYSTALLIZATION  
 08/19/1997 - 11/30/2000      FY00: \$195,215      Total: \$673,962  
*Prin. Invest.:* P LOLL  
*Prin. Invest.:* NONE  
*Tech. Officer:* MSFC/R CROMISE, MSFC/R TALLEY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

## NASA'S UNIVERSITY PROGRAM

## PENNSYLVANIA

**NAG 8 1483 UNIVERSITY OF PENNSYLVANIA 7982**  
 SURFACE TRANSFORMATION OF REACTIVE GLASS IN A MICROGRAVITY ENVIRONMENT  
 02/03/1998 - 01/31/2002 FY00: \$105,000 Total: \$280,500  
 Prin. Invest.: P DUCHEYNE  
 Tech. Officer: MSFC/P M DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1683 UNIVERSITY OF PENNSYLVANIA 7983**  
 RESEARCH POLYOMESOMES: TOUGH, GRANT VESICLES FROM BLOCK COPOLYMERS  
 05/26/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: D A  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 817 UNIVERSITY OF PENNSYLVANIA 7984**  
 USE OF BIOACTIVE GLASS PARTICLES AS MICROCARRIERS IN MICROGRAVITY ENVIRONMENT  
 08/29/1995 - 09/17/2000 FY00: \$0 Total: \$730,000  
 Prin. Invest.: P S AYYASWAMY  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1047 UNIVERSITY OF PENNSYLVANIA 7985**  
 MEASURE UROPONTIN FROM SAMPLE COLLECTION  
 07/21/1998 - 07/31/2000 FY00: \$0 Total: \$12,000  
 Prin. Invest.: J R HOYER  
 Tech. Officer: JSC/C SAMS  
 CASE Category: 56 - MEDICL

**NAG 9 1161 UNIVERSITY OF PENNSYLVANIA 7986**  
 PREDICTING VULNERABILITY OF PERFORMANCE IMPAIRMENT FROM SLEEP LOSS  
 09/21/1999 - 09/20/2002 FY00: \$125,000 Total: \$150,000  
 Prin. Invest.: H VAN D  
 Tech. Officer: JSC/C W LLOYD  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NGT 5 30165 UNIVERSITY OF PENNSYLVANIA 7987**  
 DEVELOPMENT OF A TIME RESOLVED VISIBLE AND ULTRAVIOLET SPECTROSCOPIC TECHNIQUE FOR MEASURING RES  
 08/31/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: H DAI, L LETENDRE  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50210 UNIVERSITY OF PENNSYLVANIA 7988**  
 THE INFLUENCE OF MOLECULAR PROPERTIES ON THE DYNAMICS OF CELL ADHESION  
 07/10/1998 - 06/30/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: D A HAMMER  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 43 - CHEMICAL ENGR

**NGT 5 50267 UNIVERSITY OF PENNSYLVANIA 7989**  
 ENGINEERING BIOADHESIVE COLLOIDAL SUSPENSIONS  
 07/07/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: D A HAMMER  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1186 UNIVERSITY OF PITTSBURGH 7990**  
 VESTIBULO-AUTONOMIC CIRCUITS  
 03/17/1998 - 02/28/2001 FY00: \$267,368 Total: \$542,675  
 Prin. Invest.: C D BALABAN, C A SCUDDER  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1833 UNIVERSITY OF PITTSBURGH 7991**  
 THE DISSOLUTION OF AN INTERFAC BETWEEN MISCIBLE LIQUIDS  
 05/28/1998 - 05/28/2000 FY00: \$0 Total: \$175,000  
 Prin. Invest.: J V MAHER  
 Tech. Officer: GRC/R A WILKINSON  
 CASE Category: 13 - PHYSICS

**NAG 3 2132 UNIVERSITY OF PITTSBURGH 7992**  
 SMALL - SCALE STRUCTURE OF TURBULENCE SMALL STRUCTURE OF TURBULENCE  
 02/27/1998 - 01/20/2001 FY00: \$0 Total: \$70,000  
 Prin. Invest.: W GOLDBURG  
 Tech. Officer: GRC/R SKARCH  
 CASE Category: 13 - PHYSICS

**NAG 3 2149 UNIVERSITY OF PITTSBURGH 7993**  
 SPECTROSCOPY STUDIES OF SILICON CARBIDE FOR HIGH POWERED APPLICATIONS  
 04/02/1998 - 01/24/2001 FY00: \$80,000 Total: \$200,000  
 Prin. Invest.: W J CHOYKE, R P DEVATY  
 Tech. Officer: GRC/J A POWELL  
 CASE Category: 13 - PHYSICS

**NAG 3 2396 UNIVERSITY OF PITTSBURGH 7994**  
 FORCED TWO-DIMENSIONAL TURBULENCE IN FREELY SUSPENDED FILMS  
 04/14/2000 - 11/30/2003 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: D WI  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 661 UNIVERSITY OF PITTSBURGH 7995**  
 SUBORBITAL PROGRAM IN MAGNETOSPHERIC & IONOSPHERIC PHYSICS  
 05/04/1990 - 12/31/2000 FY00: \$0 Total: \$1,006,693  
 Prin. Invest.: E C ZIPF  
 Tech. Officer: GSFC/W B JOHNSON, GSFC/R H PLESS  
 CASE Category: 13 - PHYSICS

**NAG 5 3642 UNIVERSITY OF PITTSBURGH 7996**  
 GEOLOGIC MAPPING OF REULL VALLIS, MARS  
 02/13/1997 - 09/30/2000 FY00: \$29,165 Total: \$120,565  
 Prin. Invest.: D A CROWN  
 Tech. Officer: GSFC/J G GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3723 UNIVERSITY OF PITTSBURGH 7997**  
 PHOTOMETRIC ANALYSIS OF SPACECRAFT PLANETARY IMAGE  
 02/12/1997 - 10/31/2000 FY00: \$73,435 Total: \$305,442  
 Prin. Invest.: S W HAPKE  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4037 UNIVERSITY OF PITTSBURGH 7998**  
 MODELS FOR THE EMPLACEMENT OF LAVA FLOWS: STYLES ON MARS  
 02/27/1997 - 02/28/2001 FY00: \$0 Total: \$143,100  
 Prin. Invest.: D A CROWN  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4116 UNIVERSITY OF PITTSBURGH 7999**  
 ELECTRON-ION RECOMBINATION PROCESSES RELATING TO P  
 03/03/1997 - 12/31/2000 FY00: \$58,875 Total: \$334,775  
 Prin. Invest.: D JOHNSON  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4848 UNIVERSITY OF PITTSBURGH 8000**  
 KECK MAP DYNAMICAL CHARACTERIZATION OF NEIGHBORING  
 09/05/1997 - 06/30/2000 FY00: \$0 Total: \$282,013  
 Prin. Invest.: D GATEWOOD  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5267 UNIVERSITY OF PITTSBURGH 8001**  
 LABORATORY SUPPORT FOR THE CRYOGENIC WHOLE AIR SAMPLING OF  
 CARBON DIOXIDE IN THE UPPER MESOSPHERE  
 06/01/2000 - 05/24/2003 FY00: \$63,000 Total: \$63,000  
 Prin. Invest.: E ZIPF  
 Tech. Officer: GSFC/J C BINTON  
 CASE Category: 13 - PHYSICS

**NAG 5 6164 UNIVERSITY OF PITTSBURGH 8002**  
 A CROSS DISCIPLINARY LITERACY COURSE ON EARTH SYSTEMS IN THE 21ST  
 CENTURY  
 08/27/1997 - 07/31/1999 FY00: \$0 Total: \$47,029  
 Prin. Invest.: A A PANAH  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7930 UNIVERSITY OF PITTSBURGH 8003**  
 THE NATURE AND EVOLUTION OF THE GASEOUS AND STELLAR  
 COMPONENTS OF THE GALAXY POPULATION ASSOCIATE  
 12/14/1998 - 12/14/2000 FY00: \$95,555 Total: \$202,383  
 Prin. Invest.: D A TURNSHEK  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8211 UNIVERSITY OF PITTSBURGH 8004**  
 QUANTITATIVE SPECTROSCOPIC ANALYSES OF MASSIVE STARS (LTSAG8)  
 02/26/1999 - 02/28/2001 FY00: \$71,827 Total: \$152,234  
 Prin. Invest.: J D HILLIER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8531 UNIVERSITY OF PITTSBURGH 8005**  
 MINIATURE IN SITU GEOCHRONOLOGY INSTRUMENT FOR PLANETARY  
 SURFACE DEPLOYMENT: BREADBOARD DEVELOPMENT  
 06/15/1999 - 06/30/2001 FY00: \$62,886 Total: \$121,128  
 Prin. Invest.: B W STEWART Prin. Invest.: NONE  
 Tech. Officer: GSFC/B BETTS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8546 UNIVERSITY OF PITTSBURGH 8006**  
 UNRAVELING THE EVOLUTION OF GALAXIES (LTSAG8)  
 05/21/1999 - 03/31/2001 FY00: \$93,173 Total: \$184,466  
 Prin. Invest.: A CONNOLLY  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9051 UNIVERSITY OF PITTSBURGH 8007**  
 AN INTERDISCIPLINARY TEACHER TRAINING PROGRAM ON EARTH  
 SYSTEM SCIENCE USING INFORMATION TECHNOLOGY  
 02/14/2000 - 02/14/2001 FY00: \$40,223 Total: \$40,223  
 Prin. Invest.: A I PANAH  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9399 UNIVERSITY OF PITTSBURGH 8008**  
 MULTIFREQUENCY, MULTIREOLUTION IMAGE DETECTION  
 04/12/2000 - 03/31/2001 FY00: \$77,300 Total: \$77,300  
 Prin. Invest.: A CONNOLLY  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9438 UNIVERSITY OF PITTSBURGH 8009**  
 MULTI-SPECTRAL REMOTE SENSING OF BRUSH FIRE SCARS IN ARID  
 URBAN REGIONS: ANALYSIS OF FUTURE FIRE AND  
 04/14/2000 - 04/30/2001 FY00: \$46,347 Total: \$46,347  
 Prin. Invest.: M S RAMSEY Prin. Invest.: NONE  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9439 UNIVERSITY OF PITTSBURGH 8010**  
 MONITORING THE HAZARDS OF SILICI VOLCANOES WITH REMOTE  
 SENSING  
 04/14/2000 - 04/30/2001 FY00: \$41,250 Total: \$41,250  
 Prin. Invest.: M S RAMSEY  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9466 UNIVERSITY OF PITTSBURGH 8011**  
 EMPLACEMENT OF TERRESTRIAL & PLANETARY LAVA FLOWS  
 04/18/2000 - 04/14/2003 FY00: \$58,200 Total: \$58,200  
 Prin. Invest.: D A CROWN  
 Tech. Officer: GSFC/J A GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 8 1360 UNIVERSITY OF PITTSBURGH 8012**  
 RESEARCH USE OF NASA BIOREACTOR TO STUDY CELL CYCLE REGULA-  
 TION  
 06/05/1997 - 11/29/2000 FY00: \$0 Total: \$367,428  
 Prin. Invest.: C TALLEY  
 Tech. Officer: MSFC/P VAUGHN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1587 UNIVERSITY OF PITTSBURGH 8013**  
 R/S FREELY SYSPENDED LIQUID FILMS AND THEIR APPLICATIONS IN  
 BIOLOGICAL RESEARCH  
 01/28/1999 - 11/30/2002 FY00: \$136,000 Total: \$229,000  
 Prin. Invest.: X L WU  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 61 - PSYCHOLOGY BIOLOGY

**NAG 9 835 UNIVERSITY OF PITTSBURGH 8014**  
 GROWTH, METABOLISM, AND DIFFERENTIATION OF MIP  
 09/19/1995 - 03/17/2000 FY00: -\$41 Total: \$759,959  
 Prin. Invest.: J M JESSUP  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1036 UNIVERSITY OF PITTSBURGH 8015**  
 SLEEPING SHORT  
 06/22/1998 - 07/26/2001 FY00: \$267,401 Total: \$478,401  
 Prin. Invest.: T H MONK  
 Tech. Officer: JSC/C W LLOYD  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAS 8 97111 UNIVERSITY OF PITTSBURGH 8016**  
 OPERATION AND MANAGEMENT OF THE NASA MID-ATLANTIC  
 TECHNOLOGY CENTER  
 01/29/1997 - 10/31/2000 FY00: \$1,150,001 Total: \$5,000,001  
 Prin. Invest.: L HUMMEL  
 Tech. Officer: LARC/P I CARAWAY  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAS 9 19407 UNIVERSITY OF PITTSBURGH 8017**  
 HUMAN CIRCADIAN RHYTHMS & SLEEP IN SPACE  
 10/04/1995 - 04/30/1999 FY00: \$0 Total: \$398,863  
 Prin. Invest.: T H MONK  
 Tech. Officer: JSC/J VILLAREAL  
 CASE Category: 56 - MEDICL

**NGT 1 52186 UNIVERSITY OF PITTSBURGH 8018**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 04/29/1998 - 04/30/1999 FY00: -\$1 Total: \$22,000  
 Prin. Invest.: W W CLARK, C HYDER  
 Tech. Officer: LARC/G C HORNER, LARC/L G HORTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 1 52188 UNIVERSITY OF PITTSBURGH 8019**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 04/29/1998 - 04/30/1999 FY00: -\$1 Total: \$22,000  
 Prin. Invest.: W CLARK, C WOOD  
 Tech. Officer: LARC/G C HORNER, LARC/L G HORTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 30019 UNIVERSITY OF PITTSBURGH 8020**  
 PROVIDING EARTH SYSTEMS SCIENCE APPLICATIONS ACCESS WIDE AREA  
 HIGH SPEED NETWORKS  
 10/14/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D TIPPER  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NGT 5 50029 UNIVERSITY OF PITTSBURGH 8021**  
 VESTIBULAR INFLUENCES ON SYMPATHETIC OUTFLOWS TO D SCULAR  
 BEDS  
 09/06/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: B YATES  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50174 UNIVERSITY OF PITTSBURGH 8022**  
 AN INVESTIGATION OF RAMAN SCATTERING IN SYMBIOTIC  
 STARS (STUDENT - BIRRIEL, J.)  
 05/22/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: R SCHULTE-LADBECK  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 11 - ASTRONOMY

**NGT 5 50207 UNIVERSITY OF PITTSBURGH 8023**  
 TWO-DIMENSIONAL HYDRODYNAMICS IN SOAP FILMS UNDERGOING  
 ELECTROMAGNETIC CONVECTION  
 07/09/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: X WU  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 13 - PHYSICS

**NGT 5 50252 UNIVERSITY OF PITTSBURGH 8024**  
 AUTOMATED LEARNING WITH PROBABILISTIC NETWORKS FOR STUDY &  
 EXPLORATION OF THE UNIVERSE/STUDENT: DENV  
 06/08/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: M DRUZDZEL  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50256 UNIVERSITY OF PITTSBURGH 8025**  
 THE ROLE OF THE CEREBELLUM IN CARDIOVASCULAR RESPONSES TO  
 CHANGES IN GRAVITY STUDENT: MICHAEL HOLME  
 07/07/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: B J YATES  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50292 UNIVERSITY OF PITTSBURGH 8026**  
 MULTISENSORY INTEGRATION IN THE VESTIBULAR NUCLEI: IMPLICATIONS  
 FOR RECOVERY OF FUNCTION FOLLOWING  
 07/06/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: B J YATES  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50318 UNIVERSITY OF PITTSBURGH 8027**  
 CORTICAL REPRESENTATION OF SPACE IN HUMANS/STUDENT ELISHA  
 MERRIAM  
 07/11/2000 - 07/14/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: C L COLBY  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 2160 VILLANOVA UNIVERSITY 8028**  
 1) THE PAST, PRESENT AND FUTURE SUN: AN INVESTIGATION OF SOLAR  
 PROXIES 2) UV CHROMOSPHERIC ...  
 12/31/1992 - 01/31/2000 FY00: -\$838 Total: \$42,362  
 Prin. Invest.: E F GUINAN  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2279 VILLANOVA UNIVERSITY 8029**  
 CORONAL SPECTROSCOPY AND OUTER ATMOSPHERIC MODELLING OF  
 ZERO-AGE-MAIN-SEQUENCE K DWARFS . . . .  
 07/15/1993 - 10/31/2000 FY00: \$0 Total: \$154,868  
*Prin. Invest.:* C W AMBRUSTER  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2494 VILLANOVA UNIVERSITY 8030**  
 EVOLUTION OF SOLAR CORONAL X-RAY EMISSION: ROSAT OBSERVA-  
 TIONS OF SOLAR PROXIES  
 02/03/1994 - 01/14/2000 FY00: -\$6,393 Total: \$33,582  
*Prin. Invest.:* E F GUINAN  
*Tech. Officer:* GSFC/R PETRE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2787 VILLANOVA UNIVERSITY 8031**  
 THE SUN IN TIME: THE HIGH-TEMPERATURE CORONAL STR UCTURE OF  
 SOLAR TYPE STARS  
 08/31/1994 - 03/14/2000 FY00: \$0 Total: \$53,191  
*Prin. Invest.:* E GUINAN  
*Tech. Officer:* GSFC/N E WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3136 VILLANOVA UNIVERSITY 8032**  
 EVOLUTION OF THE CORONAL STRUCTURE OF THE SUN IN T IME  
 11/01/1995 - 11/14/2000 FY00: \$0 Total: \$52,646  
*Prin. Invest.:* E F GUINAN  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4520 VILLANOVA UNIVERSITY 8033**  
 THE SUN IN TIME: ACTIVITY CYCLES OF THE YOUNG AND BETA HYDRI  
 07/03/1997 - 06/30/2000 FY00: \$0 Total: \$3,300  
*Prin. Invest.:* E GUINAN  
*Tech. Officer:* GSFC/R PETRE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7113 VILLANOVA UNIVERSITY 8034**  
 DETERMINING THE PHYSICAL PROPERTIES OF THE MAIN SE QUENCE B  
 STARS  
 03/25/1998 - 03/31/2001 FY00: \$0 Total: \$44,393  
*Prin. Invest.:* E FITZPATRICK  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8388 VILLANOVA UNIVERSITY 8035**  
 NEW INSIGHTS INTO THE STRUCTURE & EVOLUTION OF CV WHITE  
 DWARFS USING THE IUE NEWSIPS FINAL ARCHIVE  
 03/05/1999 - 03/14/2001 FY00: \$40,897 Total: \$81,017  
*Prin. Invest.:* E M SION  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8985 VILLANOVA UNIVERSITY 8036**  
 SOLAR PHYSICS WITH FUSE: FUV STUDIES OF SOLAR ANALOGS & TWINS  
 - FUSE  
 01/27/2000 - 01/31/2001 FY00: \$85,700 Total: \$65,700  
*Prin. Invest.:* E F GUINAN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

## RHODE ISLAND

**NAG 1 2970 BROWN UNIVERSITY 8037**  
 HI ORDER DISCONTINUOUS GALERKIN METHODS FOR CONVEC TION  
 DOMINATED PROBLEMS W/APPLIC TO AEROACOUSTICS  
 05/14/1998 - 11/30/2000 FY00: \$15,000 Total: \$45,000  
*Prin. Invest.:* C SHU  
*Tech. Officer:* LARC/H L ATKINS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2201 BROWN UNIVERSITY 8038**  
 REGRESSION MODELS AND ALGORITHMS FOR AERODYNAMICS APPLICA-  
 TIONS  
 06/01/1999 - 09/30/2000 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* A E PEARSON  
*Tech. Officer:* LARC/P C MURPHY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 1927 BROWN UNIVERSITY 8039**  
 DYNAMICS AND MORPHOLOGY OF SUPERFLUID HELIUM DROPS IN A  
 MICROGRAVITY ENVIRONMENT  
 07/24/1996 - 01/08/2001 FY00: \$150,000 Total: \$650,000  
*Prin. Invest.:* G M SEIDEL, H MARIS  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 13 - PHYSICS

**NAG 3 1929 BROWN UNIVERSITY 8040**  
 KINETIC AND THERMODYNAMIC STUDIES OF MELTING-FREEZ ING OF  
 HELIUM MICROGRAVITY  
 07/24/1996 - 01/08/2001 FY00: \$82,000 Total: \$354,000  
*Prin. Invest.:* D ELBAUM, J M KOSTERLITZ  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 13 - PHYSICS

**NAG 5 3859 BROWN UNIVERSITY 8041**  
 PLANETARY GEOPHYSICS AND TECTONICS  
 03/07/1997 - 10/31/2000 FY00: \$73,150 Total: \$302,644  
*Prin. Invest.:* E PARMENTIER  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3871 BROWN UNIVERSITY 8042**  
 REFLECTANCE EXPERIMENT LABORATORY  
 02/14/1997 - 09/30/2000 FY00: \$104,000 Total: \$413,039  
*Prin. Invest.:* C M PIETERS  
*Tech. Officer:* GSFC/J G GRANT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3872 BROWN UNIVERSITY 8043**  
 BROWN REGIONAL PLANETARY DATA CENTER  
 02/14/1997 - 09/30/2001 FY00: \$48,355 Total: \$216,769  
*Prin. Invest.:* P H SCHULTZ  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 3877 BROWN UNIVERSITY 8044**  
 PLANETARY IMPACT PROCESSES  
 02/14/1997 - 09/30/2000 FY00: \$137,750 Total: \$559,152  
*Prin. Invest.:* P H SCHULTZ  
*Tech. Officer:* GSFC/P G ROGERS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE



<b>NAG 5 3933</b> <b>BROWN UNIVERSITY</b> <b>8045</b> GEOLOGICAL MAPPING OF VENUS: ORIGIN OF BASINS AND STRATIGRAPHY 02/13/1997 - 02/14/2001      FY00: \$84,000      Total: \$202,750 Prin. Invest.: D W HEAD, III Tech. Officer: GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 5 6003</b> <b>BROWN UNIVERSITY</b> <b>8053</b> THE DYNAMICS OF A SEMI-ARID REGION IN RESPONSE TO POLICY 08/26/1997 - 12/31/2000      FY00: \$40,000      Total: \$355,000 Prin. Invest.: J MUSTART Tech. Officer: GSFC/A JANETOS CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 4162</b> <b>BROWN UNIVERSITY</b> <b>8046</b> MINERALOGY OF THE MARTIAN SURFACE: CRUSTAL COMPOSITION PROCESSES 03/26/1997 - 02/28/2000      FY00: \$0      Total: \$212,312 Prin. Invest.: D F MUSTARD Tech. Officer: GSFC/P ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 5 6144</b> <b>BROWN UNIVERSITY</b> <b>8054</b> MARS OBSERVER LASER ALTIMETER (MOLA) PARTICIPATION 08/19/1997 - 12/31/2001      FY00: \$77,500      Total: \$460,000 Prin. Invest.: J W HEAD Tech. Officer: GSFC/D E SMITH CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 5 4366</b> <b>BROWN UNIVERSITY</b> <b>8047</b> REMOTE SENSING INFO APPLIED TO GEOLOGICAL STUDIES 04/29/1997 - 12/31/2000      FY00: \$0      Total: \$170,000 Prin. Invest.: C M PIETERS Tech. Officer: GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 5 6597</b> <b>BROWN UNIVERSITY</b> <b>8055</b> A COMPUTER LEARNING CENTER FOR REMOTE SENSING AND GIS 12/11/1997 - 10/31/1999      FY00: \$0      Total: \$154,000 Prin. Invest.: J MUSTARD Tech. Officer: GSFC/M WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 4438</b> <b>BROWN UNIVERSITY</b> <b>8048</b> EXPERIMENTAL STUDY OF LUNAR AND SNC MAGMAS: ROLE OF 04/23/1997 - 03/31/2000      FY00: \$0      Total: \$132,000 Prin. Invest.: D J RUTHERFORD Tech. Officer: GSFC/J M BOYCE CASE Category: 11 - ASTRONOMY	<b>NAG 5 7082</b> <b>BROWN UNIVERSITY</b> <b>8056</b> AN ULTRASPECTROMETER (MEMUS) FOR PLANETARY SURFACE ANALYSIS 03/10/1998 - 03/31/2001      FY00: \$143,374      Total: \$455,444 Prin. Invest.: P H SCHULTZ Tech. Officer: GSFC/B CAMPBELL CASE Category: 11 - ASTRONOMY
<b>NAG 5 4585</b> <b>BROWN UNIVERSITY</b> <b>8049</b> TECTONIC DEFORMATION PATTERNS ON VENUS: RELATION LITHOSPHERIC PROCESSES AND EVOLUTION 05/20/1997 - 09/30/2000      FY00: \$0      Total: \$215,000 Prin. Invest.: J W HEAD, III Tech. Officer: GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 5 7866</b> <b>BROWN UNIVERSITY</b> <b>8057</b> DIAPYCNISM AND SOLID-STATE CONVECTION ON EUROPA 01/12/1999 - 12/31/2001      FY00: \$40,000      Total: \$80,000 Prin. Invest.: D T PAPPALARDO Tech. Officer: GSFC/R BEEBE CASE Category: 11 - ASTRONOMY
<b>NAG 5 4650</b> <b>BROWN UNIVERSITY</b> <b>8050</b> EVOLUTION AND DEPTHS OF THE HIGH-TI MARE PICRITE G 06/11/1997 - 04/30/2000      FY00: \$0      Total: \$123,754 Prin. Invest.: D C HESS Tech. Officer: GSFC/D NAVA CASE Category: 11 - ASTRONOMY	<b>NAG 5 7998</b> <b>BROWN UNIVERSITY</b> <b>8058</b> DISCOVERY MISSION SELECTION, ALADDIN A098-OSS-04PHOBOS-DEIMOS EXPLORATION AND 01/05/1999 - 06/30/1999      FY00: \$0      Total: \$35,000 Prin. Invest.: D PIETERS Tech. Officer: GSFC/M NOLAN CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 5 4723</b> <b>BROWN UNIVERSITY</b> <b>8051</b> PLANETARY VOLCANIC PROCESSES: SHALLOW MAGMA RESERVOIR DIVERSITY OF ERUPTION CONDITIONS 06/11/1997 - 09/30/2000      FY00: \$72,000      Total: \$322,000 Prin. Invest.: J W HEAD, III Tech. Officer: GSFC/P G ROGERS CASE Category: 32 - GEOLOGICAL SCIENCE	<b>NAG 5 8046</b> <b>BROWN UNIVERSITY</b> <b>8059</b> ORIGIN, STRUCTURE, AND EVOLUTION OF GROOVED TERRAIN ON GANYMEDE AND COMPARISON TO EUROPA 01/15/1999 - 01/14/2002      FY00: \$64,409      Total: \$126,523 Prin. Invest.: D T PAPPALARDO Tech. Officer: GSFC/D BOGAN CASE Category: 11 - ASTRONOMY
<b>NAG 5 5133</b> <b>BROWN UNIVERSITY</b> <b>8052</b> A HIGH RESOLUTION X-RAY DETECTOR USING MAGNETIC BOLOMETERS 03/12/1997 - 03/13/2001      FY00: \$25,000      Total: \$400,000 Prin. Invest.: G SEIDEL Tech. Officer: GSFC/B FLOWERS CASE Category: 13 - PHYSICS	<b>NAG 5 8144</b> <b>BROWN UNIVERSITY</b> <b>8060</b> CRYOMAGMATISM ON GANYMEDE AND EUROPA: PRINCIPLES OF EMPLACEMENT AND ERUPTION AND COMPARISON TO 02/01/1999 - 09/30/2000      FY00: \$55,000      Total: \$105,000 Prin. Invest.: D W HEAD, III Tech. Officer: GSFC/R BEEBE CASE Category: 11 - ASTRONOMY

<b>NAG 5 8174</b>	<b>BROWN UNIVERSITY</b>	<b>8061</b>	<b>KINETICS OF MELTING AND DISSOLUTION IN LUNAR MATERIALS</b>
02/04/1999 - 04/30/2001	FY00: \$62,000	Total: \$125,000	
Prin. Invest.: D C HESS			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8181</b>	<b>BROWN UNIVERSITY</b>	<b>8062</b>	<b>EXPERIMENTS AND SPECTRAL STUDIES OF MARTIAN VOLCANIC ROCKS: IMPLICATIONS FOR THE ORIGIN OF PATHFINDER</b>
02/16/1999 - 03/31/2001	FY00: \$55,000	Total: \$111,300	
Prin. Invest.: M J RUTHERFORD			
Tech. Officer: HQ/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8283</b>	<b>BROWN UNIVERSITY</b>	<b>8063</b>	<b>NORTHERN LOWLANDS OF MARS: TESTS FOR THE PRESENCE OF LAKES, SEAS AND OCEANS IN THE PAST HISTORY OF</b>
02/19/1999 - 02/28/2001	FY00: \$79,000	Total: \$158,400	
Prin. Invest.: J W HEAD			
Tech. Officer: HQ/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8302</b>	<b>BROWN UNIVERSITY</b>	<b>8064</b>	<b>MINERALOGY OF LUNAR MATERIALS FROM REFLECTANCE SPECTROSCOPY</b>
03/05/1999 - 03/31/2001	FY00: \$49,000	Total: \$104,000	
Prin. Invest.: D M PIETERS			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 8972</b>	<b>BROWN UNIVERSITY</b>	<b>8065</b>	<b>MINERALOGY OF THE MARTIAN SURFACE: CRUSTAL COMPOSITION TO SURFACE PROCESSES</b>
01/28/2000 - 02/28/2001	FY00: \$70,300	Total: \$70,300	
Prin. Invest.: J F MUSTARD, NONE			
Tech. Officer: GSFC/J GRANT			
CASE Category: 32 - GEOLOGICAL SCIENCE			
<b>NAG 5 9121</b>	<b>BROWN UNIVERSITY</b>	<b>8066</b>	<b>PRECISION AND ACCURACY OF ALI DATA FOR THE DETERMINATION OF VEGETATION ABUNDANCE</b>
03/08/2000 - 04/14/2000	FY00: \$0	Total: \$0	
Prin. Invest.: J F MUSTARD			
Tech. Officer: GSFC/S G UNGAR			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NAG 5 9287</b>	<b>BROWN UNIVERSITY</b>	<b>8067</b>	<b>REMOTE SENSING INFORMATION APPLIED TO GEOLOGICAL STUDIES OF PLANETS</b>
03/16/2000 - 03/31/2001	FY00: \$38,000	Total: \$38,000	
Prin. Invest.: C PIETERS			
Tech. Officer: GSFC/J GRANT			
CASE Category: 32 - GEOLOGICAL SCIENCE			
<b>NAG 5 9453</b>	<b>BROWN UNIVERSITY</b>	<b>8068</b>	<b>BLAST: A BALLOON-BORNE LARGE-APERTURE SUB-MILLIMETER TELESCOPE - A COMPREHENSIVE PLAN FOR GALAC</b>
04/13/2000 - 04/14/2001	FY00: \$100,000	Total: \$100,000	
Prin. Invest.: G TUCKER			
Tech. Officer: GSFC/G STRINGFELLOW			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 9522</b>	<b>BROWN UNIVERSITY</b>	<b>8069</b>	<b>EXPERIMENTAL STUDY OF LUNAR MAGMAS &amp; MAGMATIC PROCESSES</b>
04/26/2000 - 04/30/2001	FY00: \$46,000	Total: \$46,000	
Prin. Invest.: M J RUTHERFORD			
Tech. Officer: GSFC/D NAVA			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 9589</b>	<b>BROWN UNIVERSITY</b>	<b>8070</b>	<b>REFLECTANCE &amp; THERMAL INFRARED SPECTROSCOPY OF MARS RELATIONSHIP BETWEEN ISM &amp; TES FOR COMPOSITION</b>
05/12/2000 - 05/14/2001	FY00: \$53,600	Total: \$53,600	
Prin. Invest.: J F MUSTARD			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 9780</b>	<b>BROWN UNIVERSITY</b>	<b>8071</b>	<b>MARTIAN VOLCANIC EDIFICE &amp; DEPOSIT CHARACTERIZATION: VOLCANIC STYLE, MAGMA TRANSPORT &amp; EDIFICE/CALD</b>
07/10/2000 - 06/30/2001	FY00: \$73,000	Total: \$73,000	
Prin. Invest.: J W HEAD			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 32 - GEOLOGICAL SCIENCE			
<b>NAG 5 10010</b>	<b>BROWN UNIVERSITY</b>	<b>8072</b>	<b>REGOLITH PROCESSES AND THE COMPOSITIONAL DIVERSITY OF MARE BASALTS</b>
09/25/2000 - 09/30/2001	FY00: \$34,000	Total: \$34,000	
Prin. Invest.: C M PIETERS			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG 5 10031</b>	<b>BROWN UNIVERSITY</b>	<b>8073</b>	<b>ANALYSIS OF LUNAR PROSPECTOR MAGNETOMETER/ELECTRON REFLECTOMETER (MAG/ER) EXPERIMENT DATA TO ASSIST</b>
09/28/2000 - 09/30/2001	FY00: \$32,000	Total: \$32,000	
Prin. Invest.: J W HEAD III			
Tech. Officer: GSFC/J BOYCE			
CASE Category: 11 - ASTRONOMY			
<b>NAG13 39</b>	<b>BROWN UNIVERSITY</b>	<b>8074</b>	<b>RHODE ISLAND'S NARRAGANSETT BAY FROM SPACE: A PERSPECTIVE FOR THE 21ST CENTURY</b>
08/01/1998 - 12/31/2000	FY00: \$116,066	Total: \$627,750	
Prin. Invest.: MUSTARD, NONE			
Tech. Officer: SSC/R MCKELLIP			
CASE Category: 31 - ATMOSPHERIC SCIENCE			
<b>NCC 5 487</b>	<b>BROWN UNIVERSITY</b>	<b>8075</b>	<b>PRECISION AND ACCURACY OF ALI DATA FOR THE DETERMINATION OF VEGETATION ABUNDANCE</b>
04/05/2000 - 12/31/2000	FY00: \$43,360	Total: \$43,360	
Prin. Invest.: J F MUSTARD			
Tech. Officer: GSFC/S G UNGAR			
CASE Category: 39 - ENVIRONMENTAL SCI, OTHER			
<b>NCC13 98005</b>	<b>BROWN UNIVERSITY</b>	<b>8076</b>	<b>BROWN UNIVERSITY AFFILIATED RESEARCH CENTER FOR THE NORTH-EAST</b>
09/15/1998 - 12/31/2001	FY00: \$150,000	Total: \$350,000	
Prin. Invest.: J F MUSTARD			
Tech. Officer: SSC/H CARR			
CASE Category: 99 - MULTIDISCIPL, OTHER			

**NGT 1 52243** **BROWN UNIVERSITY** **8077**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/29/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J RYAN, C W SHU  
 Tech. Officer: LARC/H L ATKINS  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NGT 3 52369** **BROWN UNIVERSITY** **8078**  
 GRADUATE STUDENT RESEARCHERS PROGRAM GRADUATE STUDENT  
 RESEARCHERS PROGRAM  
 06/20/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: G P CRAWFORD  
 Tech. Officer: GRC/F J MONTEGANI  
 CASE Category: 45 - ELECTRICAL ENGR

**NGT 5 91** **BROWN UNIVERSITY** **8079**  
 SWITCHABLE/TUNABLE INTERFERENCE FILTERS FOR REMOTE SENSING  
 APPLICATIONS STUDENT: ADAM FONTECCHIO  
 06/10/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: G CRAWFORD  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 5 50166** **BROWN UNIVERSITY** **8080**  
 EFFECTS OF HIGH STRAIN-RATE DEFORMATION ON IMPACT MELT  
 GENERATION  
 06/04/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: P H SCHULTZ  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 11 - ASTRONOMY

**NGT 5 90014** **BROWN UNIVERSITY** **8081**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 02/03/1997 - 02/28/2001 FY00: \$247,500 Total: \$877,500  
 Prin. Invest.: P H SCHULTZ  
 Tech. Officer: GSFC/L KEEFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 1998** **UNIVERSITY OF RHODE ISLAND** **8082**  
 CERAMIC THIN FILM STRAIN SENSORS FOR USE AT HIGH TEMPERATURES  
 12/03/1996 - 05/31/1999 FY00: -\$66 Total: \$119,934  
 Prin. Invest.: O J GREGORY  
 Tech. Officer: GRC/L C MARTIN, GRC/W D WILLIAMS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2129** **UNIVERSITY OF RHODE ISLAND** **8083**  
 INVESTIGATION OF FLUID PHYSICS NEAR DYNAMIC CONTACT LINE-NU-  
 MERICAL SIMULATIONS AND EXPERIMENTS  
 02/23/1998 - 12/31/1998 FY00: -\$1,251 Total: \$8,749  
 Prin. Invest.: A BOSE  
 Tech. Officer: GRC/M M WEISLOGEL, GRC/B SINGH  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 3 2208** **UNIVERSITY OF RHODE ISLAND** **8084**  
 CERAMIC BASED STRAIN SENSORS FOR USE AT HIGH TEMPERATURE  
 11/17/1998 - 01/12/2001 FY00: \$80,000 Total: \$120,000  
 Prin. Invest.: O GREGORY  
 Tech. Officer: GRC/J LEI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2229** **UNIVERSITY OF RHODE ISLAND** **8085**  
 NUMERICAL SIMULATIONS FOR THE DESIGN OF TERRESTRIAL AND  
 MICROGRAVITY WETTING MICROHYDRODYNAMICS EXP  
 03/09/1999 - 12/31/2000 FY00: \$15,444 Total: \$30,888  
 Prin. Invest.: A BOSE  
 Tech. Officer: GRC/D A JACQUIN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2434** **UNIVERSITY OF RHODE ISLAND** **8086**  
 PHASE CHANGE IN LOW AND JITTERING GRAVITY ENVIRONMENT  
 SIMULATED VIA ELECTROMAGNETIC FIELD  
 05/30/2000 - 11/30/2003 FY00: \$35,685 Total: \$35,685  
 Prin. Invest.: D FAGHRI  
 Tech. Officer: GRC/H C DEGROH  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3736** **UNIVERSITY OF RHODE ISLAND** **8087**  
 SURVEY OF OCEAN FRONTS WITH SST, ALTIMETER AND IN  
 03/06/1997 - 09/30/2000 FY00: \$166,444 Total: \$509,922  
 Prin. Invest.: P CORNILLON  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 6077** **UNIVERSITY OF RHODE ISLAND** **8088**  
 PRODUCTION OF WESTERN NORTH ATLANTIC FULL RESOLUTION SST FIELDS  
 FROM THE AVHRR SENSOR  
 10/24/1997 - 06/30/2000 FY00: \$0 Total: \$214,000  
 Prin. Invest.: D CORNILLON  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 6320** **UNIVERSITY OF RHODE ISLAND** **8089**  
 PRODUCTION OF WESTERN NORTH ATLANTIC FULL RESOLUTION THE AVHRR  
 SENSOR  
 09/11/1997 - 05/31/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: P CORNILLON  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6580** **UNIVERSITY OF RHODE ISLAND** **8090**  
 DETERMINATION OF OCEAN COLOR PROVINCES IN THE NORTH ATLANTIC  
 10/27/1997 - 10/31/2001 FY00: \$178,226 Total: \$403,308  
 Prin. Invest.: P M STEGMANN  
 Tech. Officer: GSFC/J YODER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6645** **UNIVERSITY OF RHODE ISLAND** **8091**  
 SATELLITE STUDIES OF PHYTOPLANKTON DYNAMICS AND PRODUCTIVITY  
 IN THE GLOBAL OCEAN AND IN OCEAN M  
 12/01/1997 - 10/14/2000 FY00: \$186,629 Total: \$553,256  
 Prin. Invest.: J A YODER  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8739** **UNIVERSITY OF RHODE ISLAND** **8092**  
 INVESTIGATION OF AERODYNAMIC AND RADOMETRIC LAND SURFACE  
 TEMPERATURES  
 08/19/1999 - 08/14/2001 FY00: \$10,328 Total: \$20,320  
 Prin. Invest.: Y WANG  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8829 UNIVERSITY OF RHODE ISLAND 8093**  
 MULTIPLE INNOVATIVE MODELS IN REGIONAL LAND COVER CHANGE STUDIES  
 09/08/1999 - 09/30/2001 FY00: \$89,302 Total: \$182,484  
 Prin. Invest.: Y WANG  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9633 UNIVERSITY OF RHODE ISLAND 8094**  
 EXTENSION OF THE 1KM PATHFINDER AVHRR SST ARCHIVE BOTH IN TIME AND SPACE  
 05/26/2000 - 04/30/2001 FY00: \$93,750 Total: \$93,750  
 Prin. Invest.: P CORNILLON  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9724 UNIVERSITY OF RHODE ISLAND 8095**  
 U.S. COASTAL BLENDED IN SITU AND REMOTELY-SENSED OCEAN CHLOROPHYLL DATA SETS  
 06/29/2000 - 06/30/2001 FY00: \$16,236 Total: \$16,236  
 Prin. Invest.: J YODER  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 1 302 UNIVERSITY OF RHODE ISLAND 8096**  
 HYDROGEN PEROXIDE, METHYLDROPEROXIDE & FORMALDEHYDE --THEIR RELATIONSHIP TO TROPOSPHERIC OXIDANT CHEM  
 07/14/1998 - 06/30/2001 FY00: \$10,001 Total: \$319,007  
 Prin. Invest.: B HEIKES  
 Tech. Officer: LARC/J L RAPER, LARC/R J BENDURA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 408 UNIVERSITY OF RHODE ISLAND 8097**  
 HYDROGEN PEROXIDE, METHYLHYDROGEN PEROXIDE, & FORMALDEHYDE TRANSPORT & CHEM EVOLUTION OVER PACIFIC  
 09/07/2000 - 02/14/2003 FY00: \$109,541 Total: \$109,541  
 Prin. Invest.: D W O'SULLIVAN, B G HEIKES  
 Tech. Officer: LARC/J L RAPER, SR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 307 UNIVERSITY OF RHODE ISLAND 8098**  
 THE DISTRIBUTED OCEANOGRAPHIC DATA SYSTEM (DODS): A FRAMEWORK FOR ACCESS TO SCIENTIFIC DATA IN THE EO  
 04/27/1998 - 02/28/2001 FY00: \$780,000 Total: \$2,069,200  
 Prin. Invest.: P CORNILLON  
 Tech. Officer: GSFC/M MAIDEN  
 CASE Category: 33 - OCEANOGRAPHY

## SOUTH CAROLINA

**NAG 2 1164 BENEDICT COLLEGE 8099**  
 IDENTIFICATION & ISOLATION OF MICROGRAVITY RESPONSIVE CDNA'S  
 10/06/1997 - 01/14/2001 FY00: \$100,490 Total: \$298,346  
 Prin. Invest.: L LOWE  
 Tech. Officer: ARC/R E GRINDELAND, ARC/G S LEE  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1107 CLEMSON UNIVERSITY - CLEMSON 8100**  
 A LINUX WORKSTATION FOR HIGH-PERFORMANCE GRAPHICS: TASK I  
 01/23/1997 - 02/14/2000 FY00: \$0 Total: \$148,056  
 Prin. Invest.: R M GEIST, J M WESTALL  
 Tech. Officer: ARC/J R LEKASHMAN  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 3 2214 CLEMSON UNIVERSITY - CLEMSON 8101**  
 THERMAL CONTROL AND ENHANCEMENT OF HEAT CAPACITY OF CRYOGENIC CAPILLARY PUMPED LOOP AND HEAT PIPE W  
 01/22/1999 - 11/01/2002 FY00: \$15,272 Total: \$41,348  
 Prin. Invest.: D M OCHTERBECK  
 Tech. Officer: GRC/F P CHIARAMONTE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3699 CLEMSON UNIVERSITY - CLEMSON 8102**  
 ANALYSIS OF COMPTON AND OSSE OBSERVATIONS OF SUPER  
 01/24/1997 - 01/31/2001 FY00: \$0 Total: \$52,297  
 Prin. Invest.: M D LEISING  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3835 CLEMSON UNIVERSITY - CLEMSON 8103**  
 TRIO: AN OUT-OF-CORE PROGRAMMING ENVIRONMENT FOR T  
 02/10/1997 - 06/30/2000 FY00: \$0 Total: \$191,676  
 Prin. Invest.: W E LIGON, III  
 Tech. Officer: GSFC/C MOBARRY  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 4329 CLEMSON UNIVERSITY - CLEMSON 8104**  
 ISOTOPIC ANOMALIES, EXTINGUISHED RADIOACTIVITY, AND CHEMICAL SOLIDS  
 04/07/1997 - 04/14/2000 FY00: \$0 Total: \$96,000  
 Prin. Invest.: D D CLAYTON  
 Tech. Officer: GSFC/D F NAVA  
 CASE Category: 12 - CHEMISTRY

**NAG 5 4340 CLEMSON UNIVERSITY - CLEMSON 8105**  
 NUCLEAR CLUES TO SOLAR SYSTEM ORIGIN  
 04/12/1997 - 03/31/1999 FY00: \$0 Total: \$90,000  
 Prin. Invest.: P D CLAYTON  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4703 CLEMSON UNIVERSITY - CLEMSON 8106**  
 THE HISTORY OF THE NUCLEI COMPRISING PLANETARY MAT  
 06/11/1997 - 05/31/2001 FY00: \$34,000 Total: \$136,074  
 Prin. Invest.: D S MEYER  
 Tech. Officer: GSFC/D F NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5085 CLEMSON UNIVERSITY - CLEMSON 8107**  
 ROCKET/RADAR INVESTIGATION OF LOWER IONOSPHERE ELECTRODYNAMICS ASSOCIATED WITH INTENSE MID-LATITUDE  
 06/28/1996 - 02/29/2000 FY00: \$0 Total: \$133,400  
 Prin. Invest.: M F LARSEN  
 Tech. Officer: GSFC/L W GURKIN  
 CASE Category: 13 - PHYSICS

**NAG 5 5186 CLEMSON UNIVERSITY - CLEMSON 8108**  
 COUPLING OF DYNAMICS IN AURORA FUNDING FOR FIRST YEAR OF GRANT  
 03/30/1998 - 12/31/2002 FY00: \$68,200 Total: \$272,963  
 Prin. Invest.: M F LARSEN  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5242 CLEMSON UNIVERSITY - CLEMSON 8109**  
 A SOUNDING ROCKET INVESTIGATION OF THE FINE STRUCTURE IN THE MESOPAUSE REGION  
 03/16/1999 - 02/28/2002 FY00: \$93,100 Total: \$209,200  
 Prin. Invest.: M F LARSEN  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5259 CLEMSON UNIVERSITY - CLEMSON 8110**  
 FIRST YEAR OF THREE YEAR EFFORT/ A SEQUENTIAL ROCKET INVESTIGATION OF WINDS AND PLASMA LAYERS  
 04/11/2000 - 03/23/2003 FY00: \$107,700 Total: \$107,700  
 Prin. Invest.: M F LARSEN Prin. Invest.: NONE  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 6210 CLEMSON UNIVERSITY - CLEMSON 8111**  
 RECONFIGURABLE COMPUTING SYSTEMS FOR REGIONAL VALI APPLICATIONS, CONTROL NUMBER GSFC5-3265  
 08/06/1997 - 06/30/2001 FY00: \$50,000 Total: \$249,848  
 Prin. Invest.: D LIGON, III  
 Tech. Officer: GSFC/W CAMPBELL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 7570 CLEMSON UNIVERSITY - CLEMSON 8112**  
 COMPEL AND OSSE OBSERVATIONS OF NEARBY SUPERNOVAE : 1994-1999  
 07/15/1998 - 07/31/1999 FY00: \$0 Total: \$19,999  
 Prin. Invest.: M D LEISING  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7592 CLEMSON UNIVERSITY - CLEMSON 8113**  
 INVESTIGATING THE FEASIBILITY OF, AND LIMITATIONS ASSOCIATED WITH, RECOVERING GRAVITYWAVE PARAMETER  
 07/07/1998 - 06/30/2001 FY00: \$0 Total: \$158,676  
 Prin. Invest.: M P HICKEY Prin. Invest.: NONE  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 7782 CLEMSON UNIVERSITY - CLEMSON 8114**  
 PHYSICAL VARIATIONS IN THE RAINDROP SIZE DISTRIBUTION & THEIR EFFECTS ON THE QUANTITATIVE ESTIMATION  
 11/13/1998 - 11/14/2000 FY00: \$44,910 Total: \$104,820  
 Prin. Invest.: C W ULBRICH  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7831 CLEMSON UNIVERSITY - CLEMSON 8115**  
 MEASURING THE T144 MASS IN CAS A WITH OSSE  
 11/27/1998 - 11/30/1999 FY00: \$0 Total: \$15,000  
 Prin. Invest.: L THE  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8075 CLEMSON UNIVERSITY - CLEMSON 8116**  
 OSSE OBSERVATIONS OF 44TI IN SNR G266.2-1.2  
 01/15/1999 - 01/14/2001 FY00: \$0 Total: \$11,200  
 Prin. Invest.: M D LEISING  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8304 CLEMSON UNIVERSITY - CLEMSON 8117**  
 PRESOLAR DUST GRAINS IN METEORITES: ORIGIN AND MEANING  
 02/25/1999 - 04/14/2001 FY00: \$54,000 Total: \$109,000  
 Prin. Invest.: D CLAYTON  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8448 CLEMSON UNIVERSITY - CLEMSON 8118**  
 RELATING SOLAR BIRTH TO THE GALAXY  
 04/07/1999 - 03/31/2001 FY00: \$40,000 Total: \$85,000  
 Prin. Invest.: D D CLAYTON  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8605 CLEMSON UNIVERSITY - CLEMSON 8119**  
 A PROBLEM SOLVING ENVIRONMENT FOR SCALABLE REMOTE SENSING APPLICATIONS  
 06/24/1999 - 12/31/2000 FY00: \$99,920 Total: \$149,920  
 Prin. Invest.: W LIGON  
 Tech. Officer: GSFC/K MOE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 8759 CLEMSON UNIVERSITY - CLEMSON 8120**  
 MANIPULATION AND CONTACT SENSING VIA TRUNKS, TENTACLES, AND WHISKERS  
 08/26/1999 - 08/31/2000 FY00: \$123,831 Total: \$156,813  
 Prin. Invest.: I D WALKER  
 Tech. Officer: GSFC/R CROUCH  
 CASE Category: 99 - MULTIDISCIPLINARY, OTHER

**NAG 5 8763 CLEMSON UNIVERSITY - CLEMSON 8121**  
 DESIGN OF SPECIFIC MISSION FOR RADIATION PHYSICS RESEARCH  
 09/03/1999 - 01/14/2000 FY00: \$0 Total: \$26,250  
 Prin. Invest.: P J MCNULTY  
 Tech. Officer: GSFC/H C SHAW  
 CASE Category: 13 - PHYSICS

**NAG 5 9267 CLEMSON UNIVERSITY - CLEMSON 8122**  
 INVESTIGATION OF PLASMA TURBULENCE IN THE EQUATORIAL IONOSPHERE  
 03/13/2000 - 02/28/2001 FY00: \$30,700 Total: \$30,700  
 Prin. Invest.: D HYSSELL  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9459 CLEMSON UNIVERSITY - CLEMSON 8123**  
 SILICON - CARBON NANOTUBE HYBRID DEVICE DESIGN: A ROUTE TO NANOSCALE INTEGRATION  
 04/13/2000 - 04/14/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: D L CARROLL  
 Tech. Officer: GSFC/H C SHAW  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 5 9702 CLEMSON UNIVERSITY - CLEMSON 8124**  
 MEASURING THE T144 MASS IN CAS A WITH OSSE  
 06/15/2000 - 06/14/2001 FY00: \$5,000 Total: \$5,000  
 Prin. Invest.: L THE  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9802 CLEMSON UNIVERSITY - CLEMSON 8125**  
 CU/GSFC GCN/SUPER-LOTIS PROJECT COLLABORATION  
 07/19/2000 - 01/31/2001 FY00: \$19,885 Total: \$19,885  
 Prin. Invest.: D HARTMANN  
 Tech. Officer: GSFC/N GEHRELS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9824 CLEMSON UNIVERSITY - CLEMSON 8126**  
 EXTRACTION OF SINGLE EVENT UPSET PARAMETERS FROM CIRCUIT  
 SIMULATION CODE  
 07/25/2000 - 07/31/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: P MCNULTY  
 Tech. Officer: GSFC/J BARTH  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 1 283 CLEMSON UNIVERSITY - CLEMSON 8127**  
 MODELING & CHARACTERIZATION OF GEOMETRIC EFFECTS ON THE  
 PERFORMANCE OF RAINBOW CERAMICS  
 03/25/1998 - 08/31/1999 FY00: -\$5,766 Total: \$56,356  
 Prin. Invest.: R W SCHWARTZ, I BALLATO, E SKAAR  
 Tech. Officer: LARC/S A WISE  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 2 1114 CLEMSON UNIVERSITY - CLEMSON 8128**  
 VIRTUAL REALITY TECHNOLOGY FOR AIRCRAFT VISUAL INS PECTION:  
 TRAINING & JOB AIDING  
 04/23/1999 - 10/31/2000 FY00: \$87,868 Total: \$142,728  
 Prin. Invest.: A K GRAMOPADHYE  
 Tech. Officer: ARC/B G KANKI, ARC/M M CONNORS  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 1 52238 CLEMSON UNIVERSITY - CLEMSON 8129**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/03/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: Y P SUN  
 Tech. Officer: LARC/J W CONNELL, LARC/J G SMITH, JR  
 CASE Category: 12 - CHEMISTRY

**NGT 5 21 CLEMSON UNIVERSITY - CLEMSON 8130**  
 IMPROVING HIGH PERFORMANCE I/O IN COMPUTATIONAL DA TA PROC-  
 ESSING SYSTEMS  
 07/15/1996 - 06/30/1999 FY00: \$0 Total: \$86,000  
 Prin. Invest.: W B LIGON, III  
 Tech. Officer: GSFC/G A SOFFEN, GSFC/N SHORT  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 78 CLEMSON UNIVERSITY - CLEMSON 8131**  
 IMPROVING HIGH PERFORMANCE I/O IN COMPUTATIONAL DA TA PROC-  
 ESSING SYSTEMS PREVIOUS AWARD WAS ON NGT5-  
 04/15/1999 - 06/30/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: LIGON, II  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 85 CLEMSON UNIVERSITY - CLEMSON 8132**  
 COTS CUSTOM HARDWARE: THE RECONFIGURABLE APPROACH TO  
 CLUSTER BASED PARALLEL: STUDENT/KEITH UNDERWOOD  
 05/20/1999 - 08/14/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: W LIGON  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 109 CLEMSON UNIVERSITY - CLEMSON 8133**  
 ALGORITHMS & SCHEDULING FOR PARALLEL I/O (STUDENT: PHILIP CARNS)  
 06/12/2000 - 08/14/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: W B LIGON  
 Tech. Officer: GSFC/G SOFFEN  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 8 52858 CLEMSON UNIVERSITY - CLEMSON 8134**  
 ROBUST SPEECH RECOGNITION SCHEME USING PARALLEL MODEL  
 COMBINATION WITH AN ADAPTIVE HYBRID  
 07/23/1998 - 08/14/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: J N GOWDY  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 45 - ELECTRICAL ENGR

**NGT10 52611 CLEMSON UNIVERSITY - CLEMSON 8135**  
 GRADUATE STUDENT RESEARCH GRANT  
 09/01/1997 - 07/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D DAWSON  
 Tech. Officer: KSC/G BUCKINGHAM  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 8 1260 COASTAL CAROLINA UNIVERSITY 8136**  
 JOVE RESEARCH PHASE II  
 01/17/1997 - 08/31/2000 FY00: \$0 Total: \$82,000  
 Prin. Invest.: C GILLMAN, D  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4196 COLLEGE OF CHARLESTON 8137**  
 EXPLORING THE SOLAR SYSTEM IN THE CLASSROOM: A HAN  
 03/17/1997 - 07/31/1999 FY00: \$0 Total: \$8,000  
 Prin. Invest.: D R COOMBS  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7183 COLLEGE OF CHARLESTON 8138**  
 EXPLORING THE SOLAR SYSTEM IN THE CLASSROOM  
 03/16/1998 - 03/14/2001 FY00: \$16,000 Total: \$48,000  
 Prin. Invest.: C R COOMBS  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NCC 5 263 COLLEGE OF CHARLESTON 8139**  
 SOUTHEASTERN OSS-SPACE GRANT REGIONAL EDUCATION CO ALUTION:  
 KEYS TO IMPLEMENTING NASA'S OSS EDUCATIO  
 01/12/1998 - 01/14/2001 FY00: \$260,000 Total: \$760,000  
 Prin. Invest.: M COLGAN  
 Tech. Officer: GSFC/J ROSENDHAL  
 CASE Category: 11 - ASTRONOMY

## NASA'S UNIVERSITY PROGRAM

## SOUTH CAROLINA

**NCC 5 413 COLLEGE OF CHARLESTON 8140**  
 EPSCOR PREPARATION PROGRAM  
 06/18/1999 - 06/14/2001 FY00: \$225,000 Total: \$450,000  
 Prin. Invest.: M COLGAN  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40050 COLLEGE OF CHARLESTON 8141**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 02/03/1997 - 02/28/2001 FY00: \$256,250 Total: \$1,072,676  
 Prin. Invest.: M COLGAN  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40052 COLLEGE OF CHARLESTON 8142**  
 SOUTH CAROLINA SPACE GRANT CONSORTIUM-NATIONAL SPACE  
 FELLOWSHIP PROGRAM  
 02/07/1997 - 11/14/1998 FY00: \$0 Total: \$13,797  
 Prin. Invest.: M COLGAN  
 Tech. Officer: GSFC/L OSTENDORF  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 1085 FURMAN UNIVERSITY 8143**  
 PROSPECTIVE REMEMBERING UNDER COMPLEX, DEMANDING & FLUID  
 CONDITIONS  
 01/27/1999 - 12/14/2000 FY00: \$171,048 Total: \$271,024  
 Prin. Invest.: G O EINSTEIN, M A MCDANIEL  
 Tech. Officer: ARC/R K DISMUKES  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1415 MEDICAL UNIVERSITY OF SOUTH CAROLINA 8144**  
 EMBRYONIC CELL MIGRATION & METALLOPROTEINASE ACTIV ITY ARE  
 AFFECTED BY RANDOMIZATION OF THE GRAVITY  
 07/11/2000 - 06/30/2001 FY00: \$90,520 Total: \$90,520  
 Prin. Invest.: S HOFFMAN  
 Tech. Officer: ARC/M M AVERNER/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1385 MEDICAL UNIVERSITY OF SOUTH CAROLINA 8145**  
 RESEARCH "GASTRIC MUCOSAL CELL CULTURE IN SIMULATED  
 MICROGRAVITY  
 06/13/1997 - 12/30/2000 FY00: \$168,000 Total: \$525,117  
 Prin. Invest.: A J SMOLKA  
 Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO  
 CASE Category: 56 - MEDICL

**NAG 5 8246 SOUTH CAROLINA STATE UNIVERSITY 8146**  
 SHARE WITH A PAIR OF PEERS (SWAPOP II)  
 02/19/1999 - 02/28/2001 FY00: \$195,643 Total: \$387,026  
 Prin. Invest.: J D SALLEY  
 Tech. Officer: GSFC/D MENCHAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 116 SOUTH CAROLINA STATE UNIVERSITY 8147**  
 CENTER FOR NETWORK RESOURCES AND TRAINING AT SOUTH CAROLINA  
 STATE UNIVERSITY  
 08/15/1995 - 08/14/2001 FY00: \$466,000 Total: \$3,114,000  
 Prin. Invest.: D K WALTER  
 Tech. Officer: GSFC/J BENNETT  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 5 454 SOUTH CAROLINA STATE UNIVERSITY 8148**  
 CURRICULUM ENHANCEMENT THROUGH SPACE SCIENCE RSCH  
 02/11/2000 - 02/28/2001 FY00: \$300,000 Total: \$300,000  
 Prin. Invest.: D K WALTER  
 Tech. Officer: GSFC/M MATTHEWS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2108 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8149**  
 A FUNDAMENTAL STUDY OF MATERIAL FLOW IN FRICTION STIR WELDS  
 09/08/1998 - 07/31/2001 FY00: \$8,207 Total: \$37,407  
 Prin. Invest.: A P REYNOLDS  
 Tech. Officer: LARC/R A HAFLEY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 1 2237 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8150**  
 DEV OF A NOVEL METH FOR DETERMINATION OF RESIDUAL STRESSES IN  
 A FRICTION STIR WELD - NRA-99-LARC-1  
 09/21/1999 - 07/31/2001 FY00: \$1 Total: \$50,694  
 Prin. Invest.: A P REYNOLDS  
 Tech. Officer: LARC/R S PLASCIK, LARC/J C NEWMAN, JR.  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 5 4442 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8151**  
 ION MICROPROBE STUDY OF PRIMOCRYSTS IN LUNAR CUMUL  
 04/23/1997 - 05/31/1999 FY00: \$0 Total: \$30,000  
 Prin. Invest.: D W SHERVAIS  
 Tech. Officer: HQ/J M BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8524 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8152**  
 PARENT MAGMAS & PETROLOGIC PROCESSES IN THE LUNAR HIGHLANDS  
 05/13/1999 - 05/31/2000 FY00: \$0 Total: \$15,000  
 Prin. Invest.: J W SHERVIAS, NONE  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8837 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8153**  
 STUDY OF LAND-ATMOSPHERE INTERACTIONS USING SATELL ITE DATA  
 ASSIMILATION  
 09/22/1999 - 09/30/2001 FY00: \$30,015 Total: \$114,265  
 Prin. Invest.: V LAKSHMI  
 Tech. Officer: GSFC/P T HOUSER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8875 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8154**  
 COUPLING SATELLITE REMOTE SENSING & UNSTEADY FLOW MODELING  
 FOR DISCHARGE ESTIMATION  
 11/16/1999 - 10/31/2001 FY00: \$44,880 Total: \$44,880  
 Prin. Invest.: V LAKSHMI  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9233 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8155**  
 THE INFLUENCE OF LAND-ATMOSPHERE INTERACTIONS ON VARIABILITY  
 OF THE NORTH AMERICAN MONSOON  
 04/06/2000 - 04/30/2001 FY00: \$50,739 Total: \$50,739  
 Prin. Invest.: V LAKSHMI  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

## SOUTH DAKOTA

## NASA'S UNIVERSITY PROGRAM

**NAG13 27 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8156**  
 A NASA VISITING INVESTIGATOR PROGRAM  
 09/02/1993 - 12/31/1999 FY00: \$14,859 Total: \$837,283  
 Prin. Invest.: D C COWEN, D C COWEN  
 Tech. Officer: JSC/R MCKELLIP  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 174 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8157**  
 EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESE  
 12/16/1996 - 03/31/2001 FY00: \$500,000 Total: \$1,999,009  
 Prin. Invest.: J D ODOM  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC13 00003 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8158**  
 PROGRAM FOR A NASA AFFILIATED RESEARCH CENTER PROGRAM AT  
 THE UNIVERSITY OF SOUTH CAROLINA  
 02/01/2000 - 01/31/2001 FY00: \$215,750 Total: \$215,750  
 Prin. Invest.: J JENSEN  
 Tech. Officer: SSC/N SOVIK  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52128 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8159**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/23/1996 - 06/30/1999 FY00: -\$1 Total: \$66,000  
 Prin. Invest.: M A SUTTON  
 Tech. Officer: LARC/J C NEWMAN, JR., LARC/I S RAJU  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT13 52712 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8160**  
 NASA GRADUATE STUDENT PROGRAM-LEWIS HYPERSPECTRAL CHAR-  
 ACTERIZATION OF HAZARDOUS WASTE SITE CLAY CAPS  
 07/22/1997 - 07/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J JENSEN  
 Tech. Officer: JSC/A JOYCE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT13 52723 UNIVERSITY OF SOUTH CAROLINA-COLUMBIA 8161**  
 MACHINE LEARNING GMDH NEURO-FUZZY TECHNIQUES INHERENT  
 OPTICAL PROPERTY ESTIMATED  
 07/22/1999 - 07/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: J JENSEN  
 Tech. Officer: SSC/R TRAVIS  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 1 1931 VOORHEES COLLEGE 8162**  
 ESTABLISHING VOORHEES COLLEGE GEOGRAPHIC INFORMATION N  
 SYSTEM (GIS) CENTER FOR RESEARCH, EDUCATION, AND  
 05/23/1997 - 05/31/1999 FY00: -\$6,007 Total: \$353,993  
 Prin. Invest.: J QIN  
 Tech. Officer: LARC/W BALL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9624 VOORHEES COLLEGE 8163**  
 EARTH SCIENCE EDUCATION AND RESEARCH INITIATIVE  
 05/23/2000 - 05/14/2001 FY00: \$139,980 Total: \$139,980  
 Prin. Invest.: C SMITH  
 Tech. Officer: GSFC/C PERSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1310 WOFFORD COLLEGE 8164**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY00: \$0 Total: \$35,770  
 Prin. Invest.: D M SCOTT  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 49 - ENGINEERING, OTHER

## SOUTH DAKOTA

**NAG 5 6299 AUGUSTANA COLLEGE 8165**  
 AUGUSTANA COLLEGE, EARTH SYSTEM SCIENCE, CURRICULU  
 09/19/1997 - 08/31/2000 FY00: \$0 Total: \$57,217  
 Prin. Invest.: V K OLNESS  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7548 OGLALA LAKOTA COLLEGE 8166**  
 OGLALA LAKOTA COLLEGE PACE/MSET  
 07/01/1998 - 06/30/2001 FY00: \$100,000 Total: \$300,000  
 Prin. Invest.: J HAAS  
 Tech. Officer: GSFC/T GULL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 967 OGLALA LAKOTA COLLEGE 8167**  
 SMATH-STUDENT MATH & HEALTH SCIENCES INITIATIVE  
 09/24/1997 - 09/30/1999 FY00: -\$41,764 Total: \$198,236  
 Prin. Invest.: D J DEMAREST  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 3 1680 SOUTH DAKOTA SCHOOL OF MINES & TECH 8168**  
 STUDY OF SOLID STATE SURFACE FOR ELECTRON EMISSION APPLICA-  
 TIONS  
 12/05/1994 - 10/15/2000 FY00: \$0 Total: \$50,708  
 Prin. Invest.: A PETUKHOV  
 Tech. Officer: GRC/I L KRAINSKY  
 CASE Category: 13 - PHYSICS

**NAG 5 2950 SOUTH DAKOTA SCHOOL OF MINES & TECH 8169**  
 SCIENTIFIC KNOWLEDGE FOR INDIAN LEARNING AND LEA-  
 DERSHIP(SKILL) NASA HONORS SUMMER PROGRAM  
 05/31/1995 - 05/31/1999 FY00: \$0 Total: \$533,208  
 Prin. Invest.: P CAMPONE  
 Tech. Officer: GSFC/T GULL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6872 SOUTH DAKOTA SCHOOL OF MINES & TECH 8170**  
 CENTER FOR EXCELLENCE IN REMOTE SENSING AT SDSM&T  
 01/13/1998 - 06/30/1999 FY00: \$0 Total: \$82,300  
 Prin. Invest.: M PRICE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7748 SOUTH DAKOTA SCHOOL OF MINES & TECH 8171**  
 PROVIDE FOR SCIENTIFIC KNOWLEDGE FOR INDIAN LEARNING AND  
 LEADERSHIP FOR MISSION TO PLANET EARTH  
 10/21/1998 - 08/31/2000 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: F CAMPONE  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 21 - MATHEMATICS



## NASA'S UNIVERSITY PROGRAM

## TENNESSEE

**NAG 5 8973 SOUTH DAKOTA SCHOOL OF MINES & TECH 8172**  
 EARTH SYSTEMS CONNECTIONS: AN INTEGRATED K-4 SCIENCE, MATH-  
 EMATICS, & TECHNOLOGY CURRICULUM  
 02/15/2000 - 12/31/2000 FY00: \$147,500 Total: \$147,500  
 Prin. Invest.: L A VIERLING  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1447 SOUTH DAKOTA SCHOOL OF MINES & TECH 8173**  
 UPPER MISSOURI RIVER BASIN HYDROLOGY: PILOT PROJECT  
 02/23/1998 - 09/30/2000 FY00: \$0 Total: \$800,000  
 Prin. Invest.: S O FAREWELL, P L SMITH  
 Tech. Officer: MSFC/J ARNOLD  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG13 99821 SOUTH DAKOTA SCHOOL OF MINES & TECH 8174**  
 APPLICATION OF REMOTE SENSING TO FOREST RESOURCE INVENTORY  
 AND HABITAT MODELING  
 08/13/1999 - 11/01/2000 FY00: \$45,338 Total: \$98,636  
 Prin. Invest.: M PRICE  
 Tech. Officer: JSC/R MCKELLIP  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 402 SOUTH DAKOTA SCHOOL OF MINES & TECH 8175**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/14/1999 - 06/30/2001 FY00: \$225,000 Total: \$450,000  
 Prin. Invest.: S FARWELL  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 3 52312 SOUTH DAKOTA SCHOOL OF MINES & TECH 8176**  
 IN-SITU NEAR INFRA-RED CURE MONITORING AND SURFACE ANALYSIS  
 OF POLYMER COMPOSITES  
 06/21/1996 - 06/30/1999 FY00: -\$47 Total: \$65,953  
 Prin. Invest.: J KELLER  
 Tech. Officer: GRC/F MONTEGANI  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT 5 40042 SOUTH DAKOTA SCHOOL OF MINES & TECH 8177**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRA  
 01/24/1997 - 02/28/2001 FY00: \$212,500 Total: \$807,500  
 Prin. Invest.: S O FARWELL  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3445 SOUTH DAKOTA STATE UNIVERSITY 8178**  
 CHARACTERIZATION OF LANDSAT-7 GEOMETRY AND RADIOMETRY FOR  
 LAND COVER ANALYSIS.  
 10/04/1996 - 12/31/2000 FY00: \$76,783 Total: \$318,013  
 Prin. Invest.: HELDER  
 Tech. Officer: GSFC/D L WILLIAMS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3540 SOUTH DAKOTA STATE UNIVERSITY 8179**  
 TM RADIOMETRIC CALIBRATION  
 11/19/1996 - 12/31/2000 FY00: \$83,120 Total: \$266,146  
 Prin. Invest.: D HELDER  
 Tech. Officer: GSFC/D L WILLIAMS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 472 SOUTH DAKOTA STATE UNIVERSITY 8180**  
 AN INTEGRATED ASSESSMENT OF THE EARTH OBSERVER - 1 INSTRUMENT  
 SUITE & THE LANDSAT 7 ENHANCED THEMATIC  
 03/08/2000 - 12/31/2000 FY00: \$41,416 Total: \$41,416  
 Prin. Invest.: D HELDER  
 Tech. Officer: GSFC/S UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

## TENNESSEE

**NAG 3 2454 CHRISTIAN BROTHERS COLLEGE 8181**  
 ROBUST STRATEGY FOR ROCKET ENGINE HEALTH MONITORING  
 06/07/2000 - 12/31/2000 FY00: \$86,527 Total: \$86,527  
 Prin. Invest.: D SANTI  
 Tech. Officer: GRC/E WONG  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 8 1375 EAST TENNESSEE STATE UNIVERSITY 8182**  
 METASTABLE SOLUTION STRUCTURE AND OPTIMIZATION STRATEGIES IN  
 PROTEIN CRYSTAL GROWTH  
 06/18/1997 - 11/30/2001 FY00: \$110,442 Total: \$356,442  
 Prin. Invest.: L WILSON  
 Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 2 5242 EAST TENNESSEE STATE UNIVERSITY 8183**  
 VERIFICATION AND VALIDATION OF AUTOMATICALLY GENERATED  
 SOURCE CODE  
 10/30/1997 - 12/31/1999 FY00: -\$5,045 Total: \$93,385  
 Prin. Invest.: J HENRY  
 Tech. Officer: ARC/F A PATTERSON-HINE  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5361 EAST TENNESSEE STATE UNIVERSITY 8184**  
 AUTOMATED TESTING OF MATRIX X  
 12/22/1999 - 06/30/2000 FY00: \$25,217 Total: \$25,217  
 Prin. Invest.: J HENRY  
 Tech. Officer: ARC/F A PATTERSON-HINE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 6015 FISK UNIVERSITY 8185**  
 TRAINING UNDER-REPRESENTED STUDENTS IN BIOLOGICAL RESEARCH  
 AT FISK UNIVERSITY  
 08/20/1997 - 04/30/1999 FY00: \$0 Total: \$165,961  
 Prin. Invest.: M GUNASEKARAN  
 Tech. Officer: ARC/D J COLLINS  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NAG 3 1942 FISK UNIVERSITY 8186**  
 LINEAR & NONLINEAR OPTICAL PROPERTIES, CARRIER DYNAMICS &  
 SURFACE MORPHOLOGY  
 08/22/1996 - 07/31/2000 FY00: \$74,676 Total: \$224,294  
 Prin. Invest.: D O HENDERSON  
 Tech. Officer: GRC/S G BAILEY  
 CASE Category: 13 - PHYSICS

**NAG 3 2296 FISK UNIVERSITY 8187**  
 SURFACE AND INTERFACIAL STRUCTURES OF METAL ULTRA- THIN FILM  
 ON SiC AT ELEVATED TEMPERATURES  
 10/14/1999 - 08/10/2001 FY00: \$192,484 Total: \$192,484  
*Prin. Invest.:* D E COLLINS  
*Tech. Officer:* GRC/G HUNTER  
*CASE Category:* 43 - CHEMICAL ENGR

**NAG 3 2308 FISK UNIVERSITY 8188**  
 SIZE GRADED QUANTUM DOT SOLAR ENERGY CELLS FOR SPACE POWER  
 TECHNOLOGY  
 12/10/1999 - 11/30/2001 FY00: \$135,000 Total: \$135,000  
*Prin. Invest.:* D O HENDERSON  
*Tech. Officer:* GRC/E CLARK  
*CASE Category:* 13 - PHYSICS

**NAG 5 8876 FISK UNIVERSITY 8189**  
 NOVEL METHODS OF FABRICATION & EVALUATION OF ROOM TEMPERA-  
 TURE X-RAY & GAMMA-RAY CDZNT DETECTORS  
 11/24/1999 - 10/31/2000 FY00: \$35,000 Total: \$35,000  
*Prin. Invest.:* A BURGER  
*Tech. Officer:* GSFC/N GEHRELS  
*CASE Category:* 13 - PHYSICS

**NAG 8 1402 FISK UNIVERSITY 8190**  
 1997 PARTNERSHIP AWARD TELEMEDICINE AND RAPID IDENTIFICATION OF  
 MICROORGANISM BY FOURIER  
 09/09/1997 - 09/30/1999 FY00: \$0 Total: \$378,158  
*Prin. Invest.:* H T CAULFRED  
*Tech. Officer:* MSFC/J BIBRO  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1604 FISK UNIVERSITY 8191**  
 OPTICAL TRAPPING AND MANIPULATION OF NANOCRYSTALS CREATED IN  
 A LASER ABLATION PLUME  
 04/21/1999 - 04/20/2002 FY00: \$98,126 Total: \$204,616  
*Prin. Invest.:* D O HENDERSON  
*Tech. Officer:* MSFC/U  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1630 FISK UNIVERSITY 8192**  
 FABRICATION AND CHARACTERIZATION OF C80 DISPERSION IN POROUS  
 MATERIALS FOR OPTICAL LIVING  
 11/24/1999 - 11/23/2000 FY00: \$35,000 Total: \$35,000  
*Prin. Invest.:* W LU, W E COLLINS  
*Tech. Officer:* MSFC/B G PENN  
*CASE Category:* 13 - PHYSICS

**NCC 3 575 FISK UNIVERSITY 8193**  
 CONSORTIUM FOR ADVANCING RENEWABLE ENERGY TECHNOLOGY  
 (CARET)  
 09/11/1997 - 07/14/2000 FY00: \$0 Total: \$1,002,620  
*Prin. Invest.:* D O HENDERSON  
*Tech. Officer:* GRC/A F HEPP  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 5 286 FISK UNIVERSITY 8194**  
 NOVEL METHODS OF FABRICATION AND EVALUATION OF ROOM TEMPER-  
 ATURE X-RAY AND GAMMA-RAY CDZNT DETECT  
 12/12/1997 - 06/14/2000 FY00: \$0 Total: \$280,949  
*Prin. Invest.:* A BURGER  
*Tech. Officer:* GSFC/N GEHRELS  
*CASE Category:* 13 - PHYSICS

**NCC 8 133 FISK UNIVERSITY 8195**  
 FOR RESEARCH "FISK UNIVERSITY CENTER FOR PHOTONIC MATERIALS  
 AND DEVICES"  
 04/21/1997 - 12/31/2000 FY00: \$1,000,000 Total: \$4,000,000  
*Prin. Invest.:* E SILHERMAN  
*Tech. Officer:* MSFC/D O FRAZIER  
*CASE Category:* 13 - PHYSICS

**NCC 8 145 FISK UNIVERSITY 8196**  
 NOVEL METHOD FOR EVALUATION OF UNIFORMITY AND STRUCTURAL  
 HOMOGENEITY OF TERNARY WIDE GAP SEMI  
 09/19/1997 - 09/30/1999 FY00: \$0 Total: \$368,049  
*Prin. Invest.:* A BURGER  
*Tech. Officer:* MSFC/A LEHOCZKY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 8 195 FISK UNIVERSITY 8197**  
 CHARACTERIZATION OF CRYSTALLINE PERFECTION OF BINARY AND  
 TERNARY GAP SEMICONDUCTORS  
 09/30/1999 - 09/29/2001 FY00: \$20,000 Total: \$119,935  
*Prin. Invest.:* A BURGER  
*Tech. Officer:* MSFC/C HUA SU  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1211 MIDDLE TENNESSEE STATE UNIVERSITY 8198**  
 JOVE  
 09/22/1995 - 08/31/1999 FY00: -\$960 Total: \$81,040  
*Prin. Invest.:* D HEFFINGTON, D WHITE  
*Tech. Officer:* MSFC/D SIX  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 8 1486 MIDDLE TENNESSEE STATE UNIVERSITY 8199**  
 R/S DEVELOPMENT OF ANIONIC POLYELECTROLYTES FOR SOLID STATE  
 BATTERY APPLICATION  
 04/21/1998 - 01/31/2002 FY00: \$43,000 Total: \$149,000  
*Prin. Invest.:* A C FRIEDLI  
*Tech. Officer:* MSFC/C TALLEY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6049 RHODES COLLEGE 8200**  
 ACCELERATION OF THE SOLAR WIND  
 07/25/1997 - 08/31/2000 FY00: \$0 Total: \$20,370  
*Prin. Invest.:* D MACQUEEN  
*Tech. Officer:* GSFC/M FORMAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 2 1419 TENNESSEE STATE UNIVERSITY 8201**  
 QUALITY OF SERVICE COMPARISONS BETWEEN SATELLITE, MICROWAVE,  
 & T1 COMMUNICATIONS  
 07/13/2000 - 06/14/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* W A SMITH  
*Tech. Officer:* ARC/K A FREEMAN, ARC/D CHOW  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 3 1709** **TENNESSEE STATE UNIVERSITY** **8202**  
 TSU RESEARCH PROJECT FOR INCREASING THE POOL OF MINORITY ENGINEERS  
 02/01/1995 - 12/15/1998 FY00: -\$3,060 Total: \$250,920  
 Prin. Invest.: B ROGERS  
 Tech. Officer: GRC/J BOYD  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 1797** **TENNESSEE STATE UNIVERSITY** **8203**  
 MELTING OF SOLID PARTICLES IN A FLUID UNDER MICROGRAVITY  
 11/28/1995 - 08/31/2000 FY00: \$0 Total: \$599,924  
 Prin. Invest.: P X TAO  
 Tech. Officer: GRC/D S SINGH  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2244** **TENNESSEE STATE UNIVERSITY** **8204**  
 THE TSU RESEARCH PROJECT FOR INCREASING THE POOL OF MINORITY ENGINEERS  
 03/18/1999 - 02/15/2000 FY00: -\$23,408 Total: \$58,992  
 Prin. Invest.: D B ROGERS  
 Tech. Officer: GRC/M L BOROWSKI  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2266** **TENNESSEE STATE UNIVERSITY** **8205**  
 COLLEGE BOUND COLLEGE BOUND  
 05/13/1999 - 07/31/1999 FY00: -\$13,829 Total: \$14,921  
 Prin. Invest.: D B ROGERS  
 Tech. Officer: GRC/R F LAWRENCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2272** **TENNESSEE STATE UNIVERSITY** **8206**  
 TECHNICAL RESEARCH/MENTORSHIP SYMPOSIUM '99 INTEGRATION OF EDUCATION, WORK CYCLES, AND GRADUATE SCH  
 06/23/1999 - 06/30/2001 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: D B ROGERS  
 Tech. Officer: GRC/R F LAWRENCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2441** **TENNESSEE STATE UNIVERSITY** **8207**  
 COLLEGE BOUND TO GRADUATE SCHOOL COLLEGE BOUND TO GRADUATE SCHOOL  
 05/24/2000 - 11/30/2000 FY00: \$49,750 Total: \$49,750  
 Prin. Invest.: D B ROGERS  
 Tech. Officer: GRC/M CAWTHON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2471** **TENNESSEE STATE UNIVERSITY** **8208**  
 TSU RESEARCH PROJECTS FOR INCREASING THE POOL OF MINORITY ENGINEERS  
 07/10/2000 - 06/30/2001 FY00: \$72,400 Total: \$72,400  
 Prin. Invest.: D ROGERS  
 Tech. Officer: GRC/S MERRITT  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG10 217** **TENNESSEE STATE UNIVERSITY** **8209**  
 NEW AUTOMATED WEB BASED TRACKING SYSTEM  
 09/01/1997 - 09/30/2000 FY00: \$0 Total: \$330,600  
 Prin. Invest.: S SINGH DEVGAN  
 Tech. Officer: KSC/K BALLARD  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 977** **TENNESSEE STATE UNIVERSITY** **8210**  
 THE ASSOCIATE PRINCIPAL ASTRONOMER FOR AUTOMATIC TELESCOPES  
 01/24/1997 - 09/30/1998 FY00: -\$1,601 Total: \$118,399  
 Prin. Invest.: G W HENRY  
 Tech. Officer: ARC/K J SWANSON, ARC/S LAU  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 1205** **TENNESSEE STATE UNIVERSITY** **8211**  
 A PARTNERSHIP BETWEEN THE TSU CTR. OF EXCELLENCE & THE NM SUPERCOMPUTING CHALLENGE  
 09/26/2000 - 09/30/2001 FY00: \$70,800 Total: \$70,800  
 Prin. Invest.: W A SMITH  
 Tech. Officer: ARC/M E DUENAS, ARC/K FREEMAN  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 5 96** **TENNESSEE STATE UNIVERSITY** **8212**  
 NASA/TSU NETWORK RESOURCE AND TRAINING SITE  
 08/15/1995 - 08/14/2000 FY00: \$433,000 Total: \$2,878,000  
 Prin. Invest.: W A SMITH  
 Tech. Officer: GSFC/J HARRINGTON  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 5 228** **TENNESSEE STATE UNIVERSITY** **8213**  
 UNIVERSITY RESEARCH CENTER FOR AUTOMATED SPACE SCI 7/1/97 - 6/30/98.  
 09/05/1997 - 06/30/2000 FY00: \$580,000 Total: \$3,525,000  
 Prin. Invest.: M BUSBY  
 Tech. Officer: GSFC/P SAKIMOTO  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 511** **TENNESSEE STATE UNIVERSITY** **8214**  
 CENTER FOR AUTOMATED SPACE SCIENCE  
 08/23/2000 - 06/30/2001 FY00: \$434,599 Total: \$434,599  
 Prin. Invest.: M BUSBY  
 Tech. Officer: GSFC/M MATHEWS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCCW 85** **TENNESSEE STATE UNIVERSITY** **8215**  
 CENTER FOR AUTOMATED SPACE SCIENCE  
 07/20/1995 - 06/30/2000 FY00: \$0 Total: \$3,000,000  
 Prin. Invest.: M R BUSBY  
 Tech. Officer: HQ/B L WHITE  
 CASE Category: 11 - ASTRONOMY

**NGT 5 90013** **TENNESSEE STATE UNIVERSITY** **8216**  
 UNDERGRADUATE STUDENT AWARDS FOR RESEARCH (USAR)  
 12/31/1996 - 08/14/1999 FY00: -\$610 Total: \$119,390  
 Prin. Invest.: D E ROGERS  
 Tech. Officer: GSFC/R LAWRENCE  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 8 1279** **TENNESSEE TECHNOLOGICAL UNIVERSITY** **8217**  
 RESEARCH FOR JOVE  
 01/21/1997 - 08/31/2000 FY00: \$0 Total: \$75,000  
 Prin. Invest.: J C CHAI  
 Tech. Officer: MSFC/J P DOWDY, MSFC/J R PRUITT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**TENNESSEE**
**NASA'S UNIVERSITY PROGRAM**

**NAG 8 1631 TENNESSEE TECHNOLOGICAL UNIVERSITY 8218**  
**ANALYSIS OF NEARLY STEADY PHOTOSPHERIC FLOWS**  
 09/07/1999 - 09/08/2002 FY00: \$0 Total: \$29,000  
*Prin. Invest.:* S HAN  
*Tech. Officer:* MSFC/D HATHAWAY  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NGT 8 52883 TENNESSEE TECHNOLOGICAL UNIVERSITY 8219**  
**HYDROSTATIC EFFECTS ON YIELDING AND FATIGUE LIFE**  
 09/10/1999 - 09/09/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* C WILSON  
*Tech. Officer:* MSFC/J DOWDY  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2092 UNIVERSITY OF MEMPHIS 8220**  
**DYNAMIC INVESTIGATION OF STANDARD AND NON-STANDARD PARALLEL-  
 AXIS GEARS**  
 12/09/1997 - 11/23/2000 FY00: \$0 Total: \$90,000  
*Prin. Invest.:* H H LIN  
*Tech. Officer:* GRC/F B OSWALD  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 5 2995 UNIVERSITY OF MEMPHIS 8221**  
**ZSCAPE A COUPLED TECTONIC GEOMORPHIC LANDSCAPE EVOLUTION  
 MODEL**  
 07/07/1995 - 12/31/1999 FY00: -\$999 Total: \$174,001  
*Prin. Invest.:* M ELLIS  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7197 UNIVERSITY OF MEMPHIS 8222**  
**NEW DIAGNOSTIC CONSTRAINTS FOR CORONAL HEATING AND LOOP  
 DYNAMICS MODELS**  
 04/14/1998 - 04/30/2000 FY00: \$0 Total: \$43,537  
*Prin. Invest.:* J T SCHMELZ  
*Tech. Officer:* GSFC/W WAGNER  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7617 UNIVERSITY OF MEMPHIS 8223**  
**FUNDING FOR 'LANDSLIDE HAZARD IN RESPONSE TO SHORT TERM  
 CLIMATE CHANGE' (SENH98-0020)**  
 07/24/1998 - 12/31/2000 FY00: \$75,000 Total: \$187,500  
*Prin. Invest.:* M ELLIS  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9783 UNIVERSITY OF MEMPHIS 8224**  
**OBSERVATIONAL CONSTRAINTS FOR CORONAL HEATING MODELS**  
 07/06/2000 - 06/30/2001 FY00: \$31,263 Total: \$31,263  
*Prin. Invest.:* J T SCHMELZ  
*Tech. Officer:* GSFC/W J WAGNER  
*CASE Category:* 13 - PHYSICS

**NAG 5 9031 UNIVERSITY OF TENNESSEE - CHATTANOOGA 8225**  
**PRE-SERVICE TEACHER ENHANCEMENT PROGRAM**  
 02/04/2000 - 02/14/2003 FY00: \$91,717 Total: \$91,717  
*Prin. Invest.:* B W BENSON  
*Tech. Officer:* GSFC/N KHAZENIE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2163 UNIVERSITY OF TENNESSEE - KNOXVILLE 8226**  
**ATMOSPHERIC ENTRY STUDIES FOR MARS MISSIONS**  
 04/20/1999 - 06/30/2000 FY00: \$0 Total: \$20,000  
*Prin. Invest.:* J E LYNE  
*Tech. Officer:* LARC/M M MUNK  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 1 2185 UNIVERSITY OF TENNESSEE - KNOXVILLE 8227**  
**MODERN DESIGN OF EXPERIMENTS USING NEURAL NETWORKS**  
 04/21/1999 - 09/30/1999 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* C F LO  
*Tech. Officer:* LARC/R DELOACH  
*CASE Category:* 21 - MATHEMATICS

**NAG 1 2292 UNIVERSITY OF TENNESSEE - KNOXVILLE 8228**  
**HIGH-SPEED PROPULSION SYSTEMS MODELING & ANALYSIS MY 1/3**  
 04/18/2000 - 01/17/2003 FY00: \$65,586 Total: \$65,586  
*Prin. Invest.:* D W RIGGINS  
*Tech. Officer:* LARC/C R MCCLINTON, LARC/S H STACK  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2068 UNIVERSITY OF TENNESSEE - KNOXVILLE 8229**  
**DEVELOPMENT OF A 3-D TURBOFAN INLET DISCRETE TONE RADIATION  
 ANALYSIS CODE**  
 08/15/1997 - 12/15/2000 FY00: \$0 Total: \$108,092  
*Prin. Invest.:* J E CARUTHERS  
*Tech. Officer:* GRC/E ENVIA  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 3464 UNIVERSITY OF TENNESSEE - KNOXVILLE 8230**  
**INNOVATIVE RESEARCH PROGRAM - ISOTOPE MEASUREMENTS**  
 11/02/1996 - 08/31/2000 FY00: \$0 Total: \$294,991  
*Prin. Invest.:* N THONNARD  
*Tech. Officer:* GSFC/D HOLLAND  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4387 UNIVERSITY OF TENNESSEE - KNOXVILLE 8231**  
**CONSTRAINING ACCRETION AND DIFFERENTIATION OF PLAN MODELLING**  
 04/24/1997 - 02/28/2001 FY00: \$45,000 Total: \$194,100  
*Prin. Invest.:* D Y MCSWEEN, JR.  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4541 UNIVERSITY OF TENNESSEE - KNOXVILLE 8232**  
**METEORITE PETROGENESIS**  
 05/06/1997 - 03/31/2001 FY00: \$105,000 Total: \$431,000  
*Prin. Invest.:* D V MCSWEEN, JR.  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4842 UNIVERSITY OF TENNESSEE - KNOXVILLE 8233**  
**MINERALOGY AND SPECTRAL PROPERTIES OF LUNAR SOIL**  
 06/19/1997 - 04/30/2001 FY00: \$25,000 Total: \$102,000  
*Prin. Invest.:* D A TAYLOR  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 6237 UNIVERSITY OF TENNESSEE - KNOXVILLE 8234**  
 FUNDING FOR GRANT - TITLE "ADAPTIVE IMAGING: LOW IMAGING  
 THROUGH TURBULENCE" PLEASE CALL CHARLENE @  
 08/19/1997 - 08/14/1999 FY00: \$0 Total: \$20,000  
 Prin. Invest.: W E BLASS  
 Tech. Officer: GSFC/J J HILLMAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8091 UNIVERSITY OF TENNESSEE - KNOXVILLE 8235**  
 MINERALOGY AND CHEMICAL CHARACTERIZATION OF LUNAR SOILS:  
 REMOTESENSING SCIENCE  
 01/28/1999 - 01/31/2000 FY00: \$0 Total: \$27,000  
 Prin. Invest.: L A TAYLOR  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8154 UNIVERSITY OF TENNESSEE - KNOXVILLE 8236**  
 LUNAR AND PLANETARY PETROLOGY AND GEOCHEMISTRY  
 02/16/1999 - 01/31/2000 FY00: \$0 Total: \$116,500  
 Prin. Invest.: L A TAYLOR  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8405 UNIVERSITY OF TENNESSEE - KNOXVILLE 8237**  
 TOWARD THE CORE COLLAPSE SUPERNOVA MECHANISM: THE NEXT  
 GENERATION IN NEUTRINO TRANSPORT AND CONVE  
 03/16/1999 - 08/31/2001 FY00: \$53,694 Total: \$108,694  
 Prin. Invest.: A MEZZACAPPA  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8726 UNIVERSITY OF TENNESSEE - KNOXVILLE 8238**  
 PLANETARY PETROLOGY AND GEOCHEMISTRY  
 08/04/1999 - 07/31/2001 FY00: \$22,500 Total: \$46,500  
 Prin. Invest.: L A TAYLOR  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8760 UNIVERSITY OF TENNESSEE - KNOXVILLE 8239**  
 TOWARDS INTELLIGENT DISTRIBUTED BIOLUMINESCENCE DETECTION OF  
 BIOLOGICAL CONTAMINATION AND STRESSORS  
 08/26/1999 - 08/31/2000 FY00: \$197,882 Total: \$243,902  
 Prin. Invest.: G S SAYLER  
 Tech. Officer: GSFC/R CROUCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8773 UNIVERSITY OF TENNESSEE - KNOXVILLE 8240**  
 NHSE - THE NATIONAL HPCC SOFTWARE EXCHANGE  
 09/07/1999 - 08/31/2001 FY00: \$185,400 Total: \$290,000  
 Prin. Invest.: J DONGARRA  
 Tech. Officer: GSFC/J R FISCHER  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 8926 UNIVERSITY OF TENNESSEE - KNOXVILLE 8241**  
 THE POROSITY OF ASTEROIDS  
 01/07/2000 - 12/31/2000 FY00: \$31,350 Total: \$31,350  
 Prin. Invest.: D BRITT  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9061 UNIVERSITY OF TENNESSEE - KNOXVILLE 8242**  
 THE MINERALOGY OF THE INNER ASTEROID BELT  
 02/15/2000 - 02/14/2003 FY00: \$38,543 Total: \$38,543  
 Prin. Invest.: D T BRITT  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9158 UNIVERSITY OF TENNESSEE - KNOXVILLE 8243**  
 PETROGENESIS OF LUNAR AND PLANETARY CRUSTS AND MANTLES  
 03/03/2000 - 02/28/2001 FY00: \$109,000 Total: \$109,000  
 Prin. Invest.: L A TAYLOR  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1336 UNIVERSITY OF TENNESSEE - KNOXVILLE 8244**  
 DEVELOPMENT OF LIQUID HANDLING TECHNIQUES IN MICRO GRAVITY  
 UNDER DR. B.N. ANTAR  
 03/06/1997 - 09/04/1999 FY00: \$0 Total: \$54,916  
 Prin. Invest.: B N ANTAR  
 Tech. Officer: MSFC/D M KORNEFELD  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1442 UNIVERSITY OF TENNESSEE - KNOXVILLE 8245**  
 R/S PROJECT SEE (SATELLITE ENERGY EXCHANGE) TEST OF EQUIVALENCE  
 PRINCIPLE & MEASUREMENT OF GRAVITATION  
 04/24/1998 - 01/31/2003 FY00: \$50,000 Total: \$120,000  
 Prin. Invest.: A J SANDERS  
 Tech. Officer: MSFC/J POE  
 CASE Category: 13 - PHYSICS

**NAG 8 1568 UNIVERSITY OF TENNESSEE - KNOXVILLE 8246**  
 REVERSIBLE CRYOGENIC STORAGE OF MACROMOLECULAR CRYSTALS  
 GROWN IN MICROGRAVITY  
 01/15/1999 - 11/30/2002 FY00: \$145,000 Total: \$268,000  
 Prin. Invest.: G J BUNICK  
 Tech. Officer: MSFC/B V GUYNES, MSFC/D CHAFFEE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1669 UNIVERSITY OF TENNESSEE - KNOXVILLE 8247**  
 RESEARCH ENTITLED, "DEVELOPMENT OF A MONTE CARLO RADIATION  
 TRANSPORT CODE SYSTEM FOR HEDS"  
 08/16/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: L W TOWNSEND, T A GABRIEL, T W ARMSTRONG  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 13 - PHYSICS

**NAG 9 1080 UNIVERSITY OF TENNESSEE - KNOXVILLE 8248**  
 BIOLUMINESCENT BIOREPORTER INTEGRATED CIRCUITS FOR  
 MONITORING SPACECRAFT ENVIRONMENTS  
 03/15/1999 - 03/14/2002 FY00: \$100,000 Total: \$293,066  
 Prin. Invest.: G S SAYLER  
 Prin. Invest.: NONE  
 Tech. Officer: JPL/D JAN  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1121 UNIVERSITY OF TENNESSEE - KNOXVILLE 8249**  
 PREDICTING ASTRONAUT RADIATION DOSE FROM SOLAR ENERGETIC  
 07/01/1999 - 06/30/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: J S NEAL  
 Tech. Officer: JSC/G BADHWAR  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1123 UNIVERSITY OF TENNESSEE - KNOXVILLE 8250**  
 MEASUREMENT OF SECONDARY NEUTRON AND CHARGES PARTIAL  
 SPECTRA  
 07/01/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* L W TOWNSEND  
*Tech. Officer:* JSC/F A CUCINOTTA  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG10 221 UNIVERSITY OF TENNESSEE - KNOXVILLE 8251**  
 GRAVITATIONAL EFFECTS ON EMBRYOGENESIS  
 07/31/1997 - 10/31/2000 FY00: \$58,478 Total: \$240,478  
*Prin. Invest.:* R CONGES  
*Tech. Officer:* KSC/W KNOTT  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAS 8 97301 UNIVERSITY OF TENNESSEE - KNOXVILLE 8252**  
 CRITICAL PHYSICAL PROCESSES, IGNITION, DDT LENGTHS AND TIME  
 ACCURATE TREATMENTS  
 07/30/1997 - 02/07/2001 FY00: \$65,000 Total: \$195,000  
*Prin. Invest.:* J W MUELHAUSER  
*Tech. Officer:* MSFC/J COLE  
*CASE Category:* 13 - PHYSICS

**NCC 2 1187 UNIVERSITY OF TENNESSEE - KNOXVILLE 8253**  
 IN SITU & REMOTE SENSING OF MARTIAN GEOLOGY  
 06/29/2000 - 06/30/2001 FY00: \$29,534 Total: \$29,534  
*Prin. Invest.:* J E MOERSCH, E J HENRIKSEN  
*Tech. Officer:* ARC/T L ROUSH, ARC  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NCC 2 5265 UNIVERSITY OF TENNESSEE - KNOXVILLE 8254**  
 THE STUDY OF HYBRID COMPUTATION METHODS FOR THE COMPUTATION  
 OF ROTOR FLOWS AT LOW FLIGHT SPEEDS  
 04/23/1998 - 10/31/2000 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* J STEINHOFF  
*Tech. Officer:* ARC/F CARDONNA  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 5274 UNIVERSITY OF TENNESSEE - KNOXVILLE 8255**  
 DEVELOPING INFORMATION POWER GRID BASED ALGORITHMS & SOFT-  
 WARE  
 06/30/1998 - 10/31/1998 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* J DONGARRA  
*Tech. Officer:* ARC/S SAINI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5285 UNIVERSITY OF TENNESSEE - KNOXVILLE 8256**  
 ALGORITHMS & LIBRARIES  
 07/28/1998 - 10/31/1998 FY00: -\$252 Total: \$49,748  
*Prin. Invest.:* J DONGARRA  
*Tech. Officer:* ARC/S SAINI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5310 UNIVERSITY OF TENNESSEE - KNOXVILLE 8257**  
 DEVELOPING INFORMATION POWER GRID BASED ALGORITHMS & SOFT-  
 WARE  
 03/15/1999 - 02/29/2000 FY00: \$0 Total: \$95,000  
*Prin. Invest.:* J DONGARRA  
*Tech. Officer:* ARC/S SAINI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5312 UNIVERSITY OF TENNESSEE - KNOXVILLE 8258**  
 PERFORMANCE MODELING  
 03/19/1999 - 02/29/2000 FY00: \$0 Total: \$90,000  
*Prin. Invest.:* J DONGARRA  
*Tech. Officer:* ARC/SSAINI  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5390 UNIVERSITY OF TENNESSEE - KNOXVILLE 8259**  
 ENABLING QUANTUM MECHANICAL SIMULATIONS OF CARBON NANO-  
 TUBES  
 08/15/2000 - 01/31/2001 FY00: \$5,000 Total: \$5,000  
*Prin. Invest.:* P RAGHAVAN  
*Tech. Officer:* ARC/T R GOVINDAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 5 88 UNIVERSITY OF TENNESSEE - KNOXVILLE 8260**  
 CHAOSI UNDERSTANDING AND CONTROLLING LASER INSTABILITY  
 05/03/1995 - 11/14/1999 FY00: \$0 Total: \$65,000  
*Prin. Invest.:* W E BLASS  
*Tech. Officer:* GSFC/G CHIN  
*CASE Category:* 11 - ASTRONOMY

**NGT 1 52218 UNIVERSITY OF TENNESSEE - KNOXVILLE 8261**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/04/1999 - 08/30/2000 FY00: \$12,000 Total: \$22,000  
*Prin. Invest.:* B R STARR  
*Tech. Officer:* LARC/T A TALAY, LARC/R A LEPSCH  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NGT 5 50206 UNIVERSITY OF TENNESSEE - KNOXVILLE 8262**  
 EVALUATION OF CONSTRUCTED MICROBIAL COMMUNITIES AS INOCULA  
 FORBIOLOGICAL SUPPORT SYSTEMS  
 07/09/1998 - 07/14/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* G SAYLER  
*Tech. Officer:* HQ/A NURRIDIN  
*CASE Category:* 61 - PSYCHOLOGYBIOLOGY

**NGT 5 50286 UNIVERSITY OF TENNESSEE - KNOXVILLE 8263**  
 THE PETROLOGY & TEMPORAL & SPATIAL EVOLUTION OF MARTIAN  
 VOLCANISM FROM THERMALEMISSION DATA OF  
 08/22/2000 - 07/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* H Y MCSWEEN  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 1984 VANDERBILT UNIVERSITY 8264**  
 UNSEEDED SCALAR-VELOCITY MEASUREMENTS FOR PROPULSION  
 FLOWS  
 11/18/1996 - 08/31/2000 FY00: \$24,786 Total: \$263,038  
*Prin. Invest.:* R W PITZ  
*Tech. Officer:* GRC/R G SEASHOLTZ  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2401 VANDERBILT UNIVERSITY 8265**  
 SEPARATION OF CARBON MONOXIDE AND CARBON DIOXIDE FOR MARS  
 ISRU  
 04/25/2000 - 11/30/2003 FY00: \$46,567 Total: \$46,567  
*Prin. Invest.:* D LEVAN  
*Tech. Officer:* GRC/R D GREEN  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 4428 VANDERBILT UNIVERSITY 8266**  
 AN INFRARED SPECTROSCOPIC SURVEY OF ICY GRAINS IN CIRCUMSTELLAR ENVIRONMENTS OF YOUNG STARS  
 05/06/1997 - 03/31/1999 FY00: \$0 Total: \$30,000  
 Prin. Invest.: D A WEINTRAUB  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4988 VANDERBILT UNIVERSITY 8267**  
 MODEL ATMOSPHERES AND SPECTRA FOR EXTRASOLAR GIANT  
 06/26/1997 - 06/14/2000 FY00: \$0 Total: \$89,354  
 Prin. Invest.: D SAUMON  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7103 VANDERBILT UNIVERSITY 8268**  
 INVESTIGATION OF GROUND-BASED SINGLE EVENT EFFECTS: RELATIONSHIP TO SCALING, LOW-POWER, AND OTHER M  
 03/13/1998 - 12/31/1999 FY00: \$0 Total: \$49,952  
 Prin. Invest.: L MASSENGILL  
 Tech. Officer: GSFC/M M GATES  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 7556 VANDERBILT UNIVERSITY 8269**  
 A STUDY OF THE IONOSPHERE AS A SOURCE OF PLASMA FOR THE MAGNETOSPHERE  
 06/25/1998 - 06/30/1999 FY00: \$0 Total: \$70,000  
 Prin. Invest.: E DAVID  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8295 VANDERBILT UNIVERSITY 8270**  
 AN ADDITIONAL CONSTRAINT ON THE TIMESCALE FOR PLANET BUILDING  
 02/22/1999 - 03/31/2001 FY00: \$14,000 Total: \$29,000  
 Prin. Invest.: D A WEINTRAUB  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8618 VANDERBILT UNIVERSITY 8271**  
 A STUDY OF ION OUTFLOW AS A SOURCE FOR THE MAGNETOSPHERE  
 06/14/1999 - 06/30/2000 FY00: \$0 Total: \$70,000  
 Prin. Invest.: R CHAPPELL  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8906 VANDERBILT UNIVERSITY 8272**  
 THE PRESSURE IONIZATION OF HYDROGEN & THE INTERIOR OF JUPITER & SATURN  
 12/29/1999 - 01/31/2001 FY00: \$25,650 Total: \$25,650  
 Prin. Invest.: D SAUMON  
 Tech. Officer: GSFC/J GRANT  
 CASE Category: 13 - PHYSICS

**NAG 5 9565 VANDERBILT UNIVERSITY 8273**  
 NEW ISTP SOLAR MAX: A MULTI-SPACECRAFT STUDY OF THE FLOW OF IONOSPHERIC PLASMA  
 05/09/2000 - 05/14/2001 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: C CHAPPELL  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9828 VANDERBILT UNIVERSITY 8274**  
 SINGLE EVENT EFFECTS IN COMBINATIONAL LOGIC.  
 08/23/2000 - 08/31/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: L MASSENGILL  
 Tech. Officer: GSFC/J BARTH  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 8 1275 VANDERBILT UNIVERSITY 8275**  
 MICROGRAVITY PROCESSING OF OXIDE SUPERCONDUCTORS  
 05/30/1996 - 05/31/2000 FY00: \$50,000 Total: \$400,000  
 Prin. Invest.: W HOFMEISTER  
 Tech. Officer: MSFC/C R TALLEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1662 VANDERBILT UNIVERSITY 8276**  
 RECOVERY OF MINERALS IN MARTIAN SOILS VIA SUPERCRITICAL FLUID EXTRACTIONS.  
 06/01/2000 - 11/30/2003 FY00: \$45,000 Total: \$45,000  
 Prin. Invest.: K A DEBELAK  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1677 VANDERBILT UNIVERSITY 8277**  
 INVESTIGATION OF THE RELATIONSHIP BETWEEN UNDERCOOLING AND SOLIDIFICATION VELOCITY.  
 05/08/2000 - 11/30/2003 FY00: \$79,993 Total: \$79,993  
 Prin. Invest.: R J BAYUZICK  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1745 VANDERBILT UNIVERSITY 8278**  
 FLOW VISUALIZATION STUDIES IN MOLTEN ZONES  
 09/29/2000 - 04/30/2001 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: A V ANIKUMER  
 Tech. Officer: MSFC/R GRUGEL  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 19483 VANDERBILT UNIVERSITY 8279**  
 AUTONOMIC NEUROPHYSIOLOGY IN MICROGRAVITY  
 02/23/1996 - 05/31/2000 FY00: \$0 Total: \$829,697  
 Prin. Invest.: D ROBERTSON  
 Tech. Officer: JSC/A LEE  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NCC 2 992 VANDERBILT UNIVERSITY 8280**  
 ADSORPTION EQUILIBRIUM FOR TRACE CONTAMINANT CONTROL AND INCINERATOR EXHAUST PURIFICATION  
 05/22/1997 - 12/31/1999 FY00: \$0 Total: \$163,710  
 Prin. Invest.: M D LEVAN  
 Tech. Officer: ARC/J E FINN  
 CASE Category: 43 - CHEMICAL ENGR

**NCC 2 1127 VANDERBILT UNIVERSITY 8281**  
 ADSORPTION EQUILIBRIUM & FIXED BED PERFORMANCE FOR REGENERABLE INCINERATOR EXHAUST PURIFICATION & T  
 06/21/1999 - 01/31/2001 FY00: \$62,396 Total: \$112,396  
 Prin. Invest.: M D LEVAN  
 Tech. Officer: ARC/J E FINN  
 CASE Category: 43 - CHEMICAL ENGR

**NCC 2 5384 VANDERBILT UNIVERSITY 8282**  
 MODELING OF HYBRID MEMBRANE/ADSORBER FOR CARBON DI OXIDE  
 REMOVAL AND COMPARISON WITH FOUR-BED MOLE..  
 05/30/2000 - 11/30/2000 FY00: \$11,761 Total: \$11,761  
 Prin. Invest.: M D LEVAN  
 Tech. Officer: ARC/J E FINN  
 CASE Category: 43 - CHEMICAL ENGR

**NCC 8 91 VANDERBILT UNIVERSITY 8283**  
 INVESTIGATION OF THE RELATIONSHIP BETWEEN UNDER COOLING AND  
 SOLIDIFICATION VELOCITY  
 05/09/1996 - 01/31/2001 FY00: \$24,999 Total: \$412,499  
 Prin. Invest.: R J BAYVZICK  
 Tech. Officer: MSFC/P DOTY, MSFC/R POWER  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT 1 52227 VANDERBILT UNIVERSITY 8284**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 01/20/2000 - 12/31/2000 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: A COX  
 Tech. Officer: LARC/G C HORNER  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 5 105 VANDERBILT UNIVERSITY 8285**  
 CHARACTERIZATION OF PROTON RADIATION EFFECTS IN U NEAR  
 BIPOLAR DEVICES & CIRCUITS/STUDENT: H BARNAB  
 05/26/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R D SCHRIMPF  
 Prin. Invest.: NONE  
 Tech. Officer: GSFC/G A SOFFEN  
 CASE Category: 45 - ELECTRICAL ENGR

**NGT 5 40054 VANDERBILT UNIVERSITY 8286**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 02/12/1997 - 01/31/2001 FY00: \$480,750 Total: \$1,790,750  
 Prin. Invest.: A M STRAUSS  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50100 VANDERBILT UNIVERSITY 8287**  
 MINIMUM SURFACE EFFECT MICROACTUATOR FOR DEXTEROUS MICRO-  
 MANIPULATION/STUDENT: JAMES H. LIPSEY  
 11/25/1997 - 08/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: M GOLDBARB  
 Tech. Officer: HQ/M PHELPS  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NGT 5 50200 VANDERBILT UNIVERSITY 8288**  
 INVESTIGATION OF EFFECTS OF DILUTE OXYGEN SOLUTE ON  
 NUCLEATION OF ZIRCONIUM  
 07/10/1998 - 06/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: R BAYVZICK  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 43 - CHEMICAL ENGR

**NGT 5 50212 VANDERBILT UNIVERSITY 8289**  
 RELIABILITY ASSURANCE OF AEROSPACE STRUCTURES/STUDENT -  
 ANDREW M. STOEGBNER  
 07/15/1998 - 08/31/1999 FY00: \$0 Total: \$21,990  
 Prin. Invest.: S MAHADEVAN  
 Tech. Officer: GSFC/R M WEINSTOCK  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 8 52839 VANDERBILT UNIVERSITY 8290**  
 R/S "GRADUATE STUDENT RESEARCH PROGRAM" FELLOWSHIP  
 07/23/1997 - 01/31/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: M GOLDFARB  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 8 52852 VANDERBILT UNIVERSITY 8291**  
 RELIABILITY METHODS FOR AEROSPACE STRUCTURES  
 07/01/1998 - 06/14/2000 FY00: \$0 Total: \$43,508  
 Prin. Invest.: S MAHADEVAN  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 8 52857 VANDERBILT UNIVERSITY 8292**  
 SCALED FORCE REFLECTIVE TELEMANIPULATION FOR ONBOARD  
 DEXTEROUS MANIPULATION OF MICROGRAVITY  
 07/23/1998 - 08/12/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: M GOLDFARB  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 8 52859 VANDERBILT UNIVERSITY 8293**  
 INTEGRATION OF HAPTIC FEEDBACK INTO VIRTUAL ENVIRONMENTS FOR  
 MISSION OPERATION APPLICATION  
 07/23/1998 - 08/14/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: M GOLDFARB  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 46 - MECHANICAL ENGR

**NGT 8 52868 VANDERBILT UNIVERSITY 8294**  
 RELIABILITY ASSURANCE OF AEROSPACE SYSTEMS  
 09/09/1999 - 09/08/2000 FY00: \$0 Total: \$18,000  
 Prin. Invest.: S MAHADEVAN  
 Tech. Officer: MSFC/J DOWDY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 9 52 VANDERBILT UNIVERSITY 8295**  
 MACHINE PERCEPTION TO FACILITATE HUMAN-ROBOT INTER ACTION  
 07/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R A PETERS II  
 Tech. Officer: JSC/C J CULBERT  
 CASE Category: 49 - ENGINEERING, OTHER

## TEXAS

**NAG 2 1355 BAYLOR COLLEGE OF MEDICINE 8296**  
 ROLE OF MATH1 IN DEVELOPMENT & FUNCTION OF PROPRIO RECEPTORS  
 07/22/1999 - 12/31/2000 FY00: \$197,397 Total: \$295,179  
 Prin. Invest.: H J BELLEN, H Y ZOGHB  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1357 BAYLOR COLLEGE OF MEDICINE 8297**  
 THE INTERACTIVE COUPLING OF CYTOSKELETON & SIGNAL TRANSDUC-  
 TION ELEMENTS IN GRAVITY SENSITIVITY OF T-  
 07/23/1999 - 12/31/2000 FY00: \$183,680 Total: \$257,398  
 Prin. Invest.: B B HASHEMI  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)



## NASA'S UNIVERSITY PROGRAM

**NAG 5 3712 BAYLOR COLLEGE OF MEDICINE 8298**  
 ESTABLISHMENT OF THREE DIMENSIONAL PRIMARY HUMAN H  
 MICROGRAVITY ENVIRONMENT  
 12/11/1996 - 09/30/1999 FY00: \$0 Total: \$268,886  
 Prin. Invest.: D YOFFE  
 Tech. Officer: GSFC/B CARPENTER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 8 1383 BAYLOR COLLEGE OF MEDICINE 8299**  
 FOR RESEARCH ENTITLED "LIVER TISSUE ENGINEERING IN  
 MICROGRAVITY ENVIRONMENT"  
 06/26/1997 - 11/30/2000 FY00: \$184,000 Total: \$519,000  
 Prin. Invest.: B YOFE  
 Tech. Officer: MSFC/C R TALLEY  
 CASE Category: 56 - MEDICL

**NAG 8 1387 BAYLOR COLLEGE OF MEDICINE 8300**  
 FOR RESEARCH ENTITLED: "TWO DIMENSIONAL CRYSTAL GROWTH IN  
 MICROGRAVITY"  
 06/23/1997 - 11/30/2000 FY00: \$126,632 Total: \$493,348  
 Prin. Invest.: T G WENSEL  
 Tech. Officer: MSFC/B GUYBES, MSFC/J MAYO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1583 BAYLOR COLLEGE OF MEDICINE 8301**  
 ISLET CELL ASSEMBLY AND FUNCTION IN A NASA MICROGRAVITY  
 BIOREACTOR  
 02/02/1999 - 11/30/2002 FY00: \$146,999 Total: \$256,998  
 Prin. Invest.: A S RAJAN, NONE  
 Tech. Officer: JSC/N R PELLUS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1052 BAYLOR COLLEGE OF MEDICINE 8302**  
 BIOPHYSICAL MODELS OF DNA DAMAGE, MUTATION, &...  
 08/25/1998 - 09/24/2001 FY00: \$68,018 Total: \$256,674  
 Prin. Invest.: L E PETERSON  
 Tech. Officer: JSC/F A CUCINOTTA  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1133 BAYLOR COLLEGE OF MEDICINE 8303**  
 DSO MAGNETIC RESONANCE IMAGING MRI AFTER EXPOSURE TO  
 MICROGRAVITY  
 07/21/1999 - 01/30/2001 FY00: \$0 Total: \$90,072  
 Prin. Invest.: A LEBLANC  
 Tech. Officer: JSC/L SHACKE/FORD  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1153 BAYLOR COLLEGE OF MEDICINE 8304**  
 PROTECTING SCIENTIFIC INTEGRITY THROUGH DISCLOSURE OF  
 CONFLICTS OF INTERESTS  
 09/13/1999 - 09/30/2002 FY00: \$254,305 Total: \$296,393  
 Prin. Invest.: B A BRODY  
 Tech. Officer: JSC/C LLOYD  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1158 BAYLOR COLLEGE OF MEDICINE 8305**  
 ROLE OF GROWTH HORMONE SECRETOROUS AND EXERCISE ON MUSCLE  
 HOMEOSTASIS UNDER MICROGRAVITY  
 10/01/1999 - 10/31/2002 FY00: \$273,506 Total: \$273,506  
 Prin. Invest.: B J SCHWARTZ  
 Tech. Officer: JSC/C LLOYD  
 CASE Category: 56 - MEDICL

**NAG 9 1253 BAYLOR COLLEGE OF MEDICINE 8306**  
 EFFECTS OF ANTI-ORTHOSTATIC SUSPENSION ON INNATE IMMUNITY  
 09/11/2000 - 08/31/2003 FY00: \$30,452 Total: \$30,452  
 Prin. Invest.: C SMITH  
 Tech. Officer: JSC/C LLOYD  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAS 9 19404 BAYLOR COLLEGE OF MEDICINE 8307**  
 MAGNETIC RESONANCE IMAGING AFTER EXPOSURE TO MICRO GRAVITY  
 09/25/1995 - 02/29/2000 FY00: \$0 Total: \$998,136  
 Prin. Invest.: A LEBLANC  
 Tech. Officer: JSC/C M BUNTIN  
 CASE Category: 56 - MEDICL

**NCC 9 58 BAYLOR COLLEGE OF MEDICINE 8308**  
 NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE  
 03/26/1997 - 09/30/2002 FY00: \$14,765,833 Total: \$41,694,066  
 Prin. Invest.: B R ALFORD, M.D.  
 Tech. Officer: JSC/C F SAWIN  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 9 61 BAYLOR COLLEGE OF MEDICINE 8309**  
 PREVENTION OF BED REST OSTEOPOROSIS  
 05/23/1997 - 05/23/2001 FY00: \$590,000 Total: \$1,900,512  
 Prin. Invest.: A D LE BLANC  
 Tech. Officer: JSC/L C SHACKELFORD  
 CASE Category: 56 - MEDICL

**NCC 9 88 BAYLOR COLLEGE OF MEDICINE 8310**  
 COMPARISON OF STRENGTH TRAINING WITH ISS INTERIM RESISTANCE  
 EXERCISE DEVISE VS FREE  
 07/20/1999 - 01/18/2001 FY00: \$0 Total: \$23,040  
 Prin. Invest.: A BEBLANC  
 Tech. Officer: JSC/S SCHNEIDER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 8566 HOUSTON COMMUNITY COLLEGE 8311**  
 NASA/HCC SCIENCE CHALLENGE PROGRAM  
 05/20/1999 - 08/31/2000 FY00: \$0 Total: \$150,000  
 Prin. Invest.: C GARCIA  
 Tech. Officer: GSFC/M MATEU  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1065 JARVIS CHRISTIAN COLLEGE 8312**  
 PACE/MSET SUMMER CAMP CAMP FOR TRAINING & MENTORING  
 01/07/1999 - 12/31/2000 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: M J MCKINNEY  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1174 LE TOURNEAU UNIVERSITY 8313**  
 DIAGNOSTIC OF CARNON NANOTUBE FORMATION IN A LASER PRODUCED  
 PLUME  
 10/25/1999 - 10/25/2000 FY00: \$15,500 Total: \$15,500  
 Prin. Invest.: G D DEBOER  
 Tech. Officer: JSC/B S FILES, JSC/C SCOTT  
 CASE Category: 13 - PHYSICS

**NAG 9 976 OUR LADY OF THE LAKE UNIVERSITY 8314**  
 SPACE AND GEOSCIENCE PROJECT  
 09/25/1997 - 08/31/1999 FY00: -\$14,094 Total: \$376,528  
 Prin. Invest.: J KUEKER  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1170 OUR LADY OF THE LAKE UNIVERSITY 8315**  
 ENGAGING EDUCATORS IN THE EARTH/SCIENCE ENTERP  
 09/24/1999 - 09/29/2000 FY00: \$39,500 Total: \$139,152  
 Prin. Invest.: K A WARD  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1154 PRAIRIE VIEW A&M UNIVERSITY 8316**  
 STUDY OF RADIATION EFFECTS ON INFRARED DETECTORS & MATERIALS  
 FOR SPACE-BASED ASTRONOMY APPLICATIONS  
 08/27/1997 - 08/31/1999 FY00: \$0 Total: \$129,532  
 Prin. Invest.: R T WILKINS  
 Tech. Officer: ARC/C R MCCREIGHT, ARC/G S LEE  
 CASE Category: 13 - PHYSICS

**NAG 3 2065 PRAIRIE VIEW A&M UNIVERSITY 8317**  
 RADIATION EFFECTS ON DC-DC CONVERTERS RADIATION EFFECTS ON  
 DC-DC CONVERTER  
 08/01/1997 - 09/30/2000 FY00: \$0 Total: \$393,714  
 Prin. Invest.: J O ATTIA, R SCHRIMPF, K F GALLOWAY  
 Tech. Officer: GRC/M D KANKAM  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 4 148 PRAIRIE VIEW A&M UNIVERSITY 8318**  
 RADIATION EFFECTS ON ELECTRONIC MATERIAL AND DEVICES  
 03/03/1998 - 02/27/2001 FY00: \$99,999 Total: \$266,999  
 Prin. Invest.: R WILKINS  
 Tech. Officer: DFRC/E COX  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 210 PRAIRIE VIEW A&M UNIVERSITY 8319**  
 MITIGATION OF HIGH ALTITUDE AND LOW EARTH ORBIT RADIATION  
 EFFECTS ON MICROELECTRONICS VIA SHIELDING  
 06/07/2000 - 06/06/2003 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: D K KIRBY  
 Tech. Officer: DFRC/D GUPTA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 2317 PRAIRIE VIEW A&M UNIVERSITY 8320**  
 THE PLASMA CONFIGURATION OF NEPTUNE'S MAGNETOSPHERE  
 07/28/1993 - 05/31/1999 FY00: \$0 Total: \$408,000  
 Prin. Invest.: T S HUANG  
 Tech. Officer: GSFC/R E HARTLE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 5130 PRAIRIE VIEW A&M UNIVERSITY 8321**  
 STUDY OF RADIATION EFFECTS ON ELECTRONIC DEVICES AT HIGH  
 ATMOSPHERE ALTITUDES  
 07/02/1997 - 09/30/2000 FY00: \$0 Total: \$33,941  
 Prin. Invest.: R WILKINS  
 Tech. Officer: GSFC/H NEEDLEMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 6823 PRAIRIE VIEW A&M UNIVERSITY 8322**  
 ENHANCEMENT OF TEXGED, PVAMU TO BE A CENTER OF EXCELLENCE IN  
 APPLICATIONS OF REMOTE SENSING TO REGI  
 01/30/1998 - 12/31/2000 FY00: \$0 Total: \$53,308  
 Prin. Invest.: S H SHAKIR  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1334 PRAIRIE VIEW A&M UNIVERSITY 8323**  
 R/S #RF97-00112 "COMBUSTION CFD TECHNOLOGY STUDY FOR  
 ADVANCED AIRBREATHING PROPULSION SYSTEMS"  
 02/12/1997 - 02/28/1999 FY00: \$0 Total: \$200,000  
 Prin. Invest.: Z HGGUE  
 Tech. Officer: MSFC/P K MC CONNAUGHEY  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 8 1338 PRAIRIE VIEW A&M UNIVERSITY 8324**  
 ESTABLISHMENT OF A SOLAR OBSERVATORY AND STUDIES ON THE  
 SOLAR ATMOSPHERE  
 03/18/1997 - 12/12/2000 FY00: \$62,754 Total: \$338,700  
 Prin. Invest.: T HUANG  
 Tech. Officer: MSFC/J M DAVIS  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1644 PRAIRIE VIEW A&M UNIVERSITY 8325**  
 ADVANCED FUEL INJECTOR OPTIMIZATION FOR RBCC ENGINE CONCEPT  
 09/30/1999 - 09/30/2001 FY00: \$0 Total: \$100,000  
 Prin. Invest.: Z HAQUE, N BUTUK  
 Tech. Officer: MSFC/A BEAM, MSFC/W LOVE  
 CASE Category: 43 - CHEMICAL ENGR

**NAG 9 1136 PRAIRIE VIEW A&M UNIVERSITY 8326**  
 POWER QUALITY AND RELIABILITY  
 08/24/1999 - 08/23/2001 FY00: \$0 Total: \$100,000  
 Prin. Invest.: W F TROTTEY, J ATTIA  
 Tech. Officer: JSC/W C ROEH, JSC/L M ARMENDARIZ  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 1241 PRAIRIE VIEW A&M UNIVERSITY 8327**  
 USE OF ELECTROMIGRATION TO IMMOBILIZE METAL IONS  
 06/22/2000 - 05/31/2001 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: R CUERO  
 Tech. Officer: JSC/D S MCKAY, JSC/L ARMENDARIZ  
 CASE Category: 55 - AGRICULTURE

**NAG13 46 PRAIRIE VIEW A&M UNIVERSITY 8328**  
 TEXAS GULF COAST ENVIRONMENTAL DATA CENTER SAME  
 10/04/1995 - 12/17/2000 FY00: \$0 Total: \$270,125  
 Prin. Invest.: S SHAKIR  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 3 577 PRAIRIE VIEW A&M UNIVERSITY 8329**  
 RESEARCH TO SIGNIFICANTLY ENHANCE COMPOSITES SURVIVABILITY AT  
 550 DEGREES F IN OXIDATIVE ENVIRONMENT  
 09/26/1997 - 08/31/2001 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: L E CARSON-ISABELLE  
 Tech. Officer: GRC/M A MEADOR  
 CASE Category: 12 - CHEMISTRY

## NASA'S UNIVERSITY PROGRAM

TEXAS

**NCC 5 115 PRAIRIE VIEW A&M UNIVERSITY 8330**  
 ESTABLISHMENT OF A NASA SOUTHWEST REGIONAL NETWORK  
 RESOURCES TRAINING SITE  
 08/15/1995 - 09/14/2001 FY00: \$438,200 Total: \$2,864,000  
*Prin. Invest.:* J R WILLIAMS  
*Tech. Officer:* GSFC/J HARINGTON  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 9 50 PRAIRIE VIEW A&M UNIVERSITY 8331**  
 TRANSFERRED FROM HQ (NCCW-0086) & INCR FUND  
 02/13/1997 - 08/30/2000 FY00: \$562,643 Total: \$4,404,793  
*Prin. Invest.:* T N FOGARTY  
*Tech. Officer:* JSC/J D ATKINSON  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCC 9 66 PRAIRIE VIEW A&M UNIVERSITY 8332**  
 SOFTWARE ENGINEERING INITIATIVE  
 09/25/1997 - 12/31/2002 FY00: \$500,831 Total: \$1,396,427  
*Prin. Invest.:* J D OLIVER  
*Tech. Officer:* JSC/L MCWHORTER, JSC/K MARTINDALE  
*CASE Category:* 49 - ENGINEERING, OTHER

**NCC 9 114 PRAIRIE VIEW A&M UNIVERSITY 8333**  
 CENTER APPLIED RADIATION RESEARCH  
 09/27/2000 - 08/31/2001 FY00: \$420,000 Total: \$420,000  
*Prin. Invest.:* R WILKINS  
*Tech. Officer:* JSC/F A CUCINOTTA  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NCCW 86 PRAIRIE VIEW A&M UNIVERSITY 8334**  
 CENTER FOR APPLIED RADIATION RESEARCH (CARR)  
 08/04/1995 - 06/30/2000 FY00: \$0 Total: \$2,003,775  
*Prin. Invest.:* T N FOGARTY  
*Tech. Officer:* HQ/B L WHITE  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 1 2134 RICE UNIVERSITY 8335**  
 NONLINEAR RECEPTIVITY AND BY-PASS TRANSITION IN THREE-DIMEN-  
 SIONAL BOUNDARY LAYERS NRA 98 LARC5  
 02/10/1999 - 01/31/2002 FY00: \$38,975 Total: \$77,950  
*Prin. Invest.:* S S COLLIS  
*Tech. Officer:* LARC/R R ANTOLIFF  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 1112 RICE UNIVERSITY 8336**  
 QUANTUM MECHANICAL MODELING OF CARBON NANOSTRUCTURES  
 02/07/1997 - 09/30/1999 FY00: \$0 Total: \$231,583  
*Prin. Invest.:* G E SCUSERIA  
*Tech. Officer:* ARC/C LEVIT, ARC/D A BAILEY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1181 RICE UNIVERSITY 8337**  
 COMPILER TECHNOLOGY EFFECTIVE PARALLELIZATION OF NASA CODES  
 02/27/1998 - 01/31/2000 FY00: \$0 Total: \$85,517  
*Prin. Invest.:* J MELLOR-CRUMMEY  
*Tech. Officer:* ARC/A GRADY-HISER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 1401 RICE UNIVERSITY 8338**  
 VIRTUAL PROTOTYPING FOR CARBON NANOTUBES  
 04/24/2000 - 11/14/2000 FY00: \$70,225 Total: \$70,225  
*Prin. Invest.:* B YAKOBSON  
*Tech. Officer:* ARC/M MEYYAPPAN, ARC/H PARTRIDGE  
*CASE Category:* 13 - PHYSICS

**NAG 3 1851 RICE UNIVERSITY 8339**  
 COLLISIONAL FREQUENCY SHIFTS NEAR A ZERO ENERGY RESONANCE  
 05/06/1996 - 05/05/1999 FY00: -\$21 Total: \$149,979  
*Prin. Invest.:* P G MULET  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 3 2365 RICE UNIVERSITY 8340**  
 THERMAL PROTECTIVE COATING FOR HIGH TEMPERATURE POLYMER  
 COMPOSITES  
 03/23/2000 - 03/31/2001 FY00: \$35,000 Total: \$35,000  
*Prin. Invest.:* A BARRON  
*Tech. Officer:* GRC/K C CHUANG  
*CASE Category:* 12 - CHEMISTRY

**NAG 5 1626 RICE UNIVERSITY 8341**  
 HUBBLE SPACE TELESCOPE RESEARCH  
 06/07/1991 - 10/31/1999 FY00: \$0 Total: \$1,805,927  
*Prin. Invest.:* C R O'DELL  
*Tech. Officer:* GSFC/S SOBIESKI  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2689 RICE UNIVERSITY 8342**  
 CREATING THE PUBLIC CONNECTION: INTERACTIVE EXPERIENCES WITH  
 REAL-TIME EARTH AND SPACE SCIENCE  
 08/24/1994 - 12/31/1998 FY00: -\$2,273 Total: \$912,890  
*Prin. Invest.:* P REIF  
*Tech. Officer:* GSFC/N LAL  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2736 RICE UNIVERSITY 8343**  
 NATIONAL SOFTWARE EXCHANGE FOR THE HIGH PERFORMANCE  
 COMPUTING COMMUNICATIONS PROGRAM  
 09/22/1994 - 09/30/2000 FY00: \$0 Total: \$4,187,500  
*Prin. Invest.:* K KENNEDY  
*Tech. Officer:* GSFC/J R FISCHER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 3824 RICE UNIVERSITY 8344**  
 STUDY OF SOFT GAMMA RAY REPEATERS  
 01/29/1997 - 02/14/1999 FY00: -\$137 Total: \$187,703  
*Prin. Invest.:* E P LIANG  
*Tech. Officer:* GSFC/J PNORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4055 RICE UNIVERSITY 8345**  
 NUMERICAL SIMULATION OF HIGH ENERGY EMISSIONS FROM  
 03/11/1997 - 03/14/2000 FY00: -\$10,000 Total: \$282,000  
*Prin. Invest.:* E T LIANG  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 4072** **RICE UNIVERSITY** **8346**  
 NASA SPECIALIZED CENTER OF RESEARCH AND TRAINING (AL BIOLOGY  
 04/07/1997 - 02/28/2001 FY00: \$845,940 Total: \$2,947,326  
*Prin. Invest.:* L MCINTIRE  
*Tech. Officer:* GSFC/L CHAMBERS  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 4267** **RICE UNIVERSITY** **8347**  
 COMPREHENSIVE COMPUTATIONAL MODEL OF THE EARTH'S R  
 03/25/1997 - 05/14/2001 FY00: \$0 Total: \$153,886  
*Prin. Invest.:* D A WOLF  
*Tech. Officer:* GSFC/J BOHLUN  
*CASE Category:* 13 - PHYSICS

**NAG 5 4726** **RICE UNIVERSITY** **8348**  
 DEVELOPMENT AND APPLICATIONS OF A MODULAR MODEL OF MAGNETO-  
 SPHERE  
 06/19/1997 - 05/14/2001 FY00: \$0 Total: \$268,344  
*Prin. Invest.:* D R TOFFOLETTO  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 13 - PHYSICS

**NAG 5 4822** **RICE UNIVERSITY** **8349**  
 THE OPEN POLAR CAP: COMPARISON OF POLAR IMAGES WI  
 06/17/1997 - 06/14/2001 FY00: \$0 Total: \$188,000  
*Prin. Invest.:* D W HILL  
*Tech. Officer:* GSFC/J GREBOWSKY  
*CASE Category:* 13 - PHYSICS

**NAG 5 4909** **RICE UNIVERSITY** **8350**  
 A PROCESS LEVEL STUDY OF METHANE EMISSIONS FROM RI  
 06/19/1997 - 03/31/1999 FY00: -\$60 Total: \$170,678  
*Prin. Invest.:* R L SASS  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6432** **RICE UNIVERSITY** **8351**  
 MAGNETOSPHERIC CONVECTION AT JUPITER & SATURN  
 10/14/1997 - 07/14/2001 FY00: \$21,466 Total: \$216,449  
*Prin. Invest.:* D HILL  
*Tech. Officer:* GSFC/J BERGSTRALH  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 7037** **RICE UNIVERSITY** **8352**  
 SOLAR WIND INTERACTION AT VENUS TO MARS, INCLUDING THE  
 MAGNETIC EFFECTS OF THE MARTIAN CRUSTAL MAGN  
 02/20/1998 - 02/28/2001 FY00: \$70,000 Total: \$169,498  
*Prin. Invest.:* P A CLOUTIER  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS

**NAG 5 7041** **RICE UNIVERSITY** **8353**  
 A VECTOR POTENTIAL MODEL FOR MARTIAN CRUSTAL MAGNETIC ANOM-  
 ALIES  
 03/02/1998 - 02/29/2000 FY00: \$0 Total: \$68,051  
*Prin. Invest.:* P A CLOUTIER  
*Tech. Officer:* GSFC/M H ACUNA  
*CASE Category:* 13 - PHYSICS

**NAG 5 7900** **RICE UNIVERSITY** **8354**  
 MODELING BATSE GAMMA-RAY BURST CONTINUUM SPECTRA AND SPEC-  
 TRAL EVOLUTION  
 01/19/1999 - 01/14/2001 FY00: \$12,000 Total: \$32,000  
*Prin. Invest.:* E P LIANG  
*Tech. Officer:* GSFC/J P NORRIS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8131** **RICE UNIVERSITY** **8355**  
 NUMERICAL SIMULATION OF ROTATION-DRIVEN PLASMA TRANSPORT IN  
 THE JOVIAN MAGNETOSPHERE  
 01/28/1999 - 01/31/2001 FY00: \$68,186 Total: \$137,557  
*Prin. Invest.:* D W HILL  
*Tech. Officer:* GSFC/D EVANS  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8136** **RICE UNIVERSITY** **8356**  
 "COMPREHENSIVE QUANTITATIVE MODEL OF INNER-MAGNETOSPHERE  
 DYNAMICS."  
 01/29/1999 - 01/31/2001 FY00: \$271,296 Total: \$421,296  
*Prin. Invest.:* R A WOLF  
*Tech. Officer:* GSFC/J GREBOWSKY  
*CASE Category:* 13 - PHYSICS

**NAG 5 8300** **RICE UNIVERSITY** **8357**  
 DATA ANALYSIS FOR POLAR MAGNETIC FIELD EXPERIMENT  
 04/26/1999 - 12/31/2000 FY00: \$32,500 Total: \$65,000  
*Prin. Invest.:* P REIFF  
*Tech. Officer:* GSFC/R HOFFMAN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 9011** **RICE UNIVERSITY** **8358**  
 FAR-UV OBSERVATIONS OF LOW AND HIGH-EXCITATION HERBIG-HARDO  
 SHOCKS - FUSE  
 02/02/2000 - 01/31/2001 FY00: \$28,200 Total: \$28,200  
*Prin. Invest.:* P HARTIGAN  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9077** **RICE UNIVERSITY** **8359**  
 ACCELERATION & TRANSPORT OF ENERGETIC PARTICLES IN THE OUTER  
 MAGNETOSPHERE  
 02/23/2000 - 02/28/2001 FY00: \$75,400 Total: \$75,400  
*Prin. Invest.:* R WOLF  
*Tech. Officer:* GSFC/J SHARBER  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NAG 5 9212** **RICE UNIVERSITY** **8360**  
 SIMULTANEOUS MULTIWAVELENGTH OBSERVATIONS OF GX 339-4 IN 1999  
 AUGUST (ADP 99)  
 03/10/2000 - 03/14/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* E LANG  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9223** **RICE UNIVERSITY** **8361**  
 NUMERICAL SIMULATION OF HIGH ENERGY EMISSIONS FROM COMPACT  
 OBJECTS  
 03/14/2000 - 03/14/2001 FY00: \$95,059 Total: \$95,059  
*Prin. Invest.:* E LIANG  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

## NASA'S UNIVERSITY PROGRAM

TEXAS

**NAG 5 9904** **RICE UNIVERSITY** **8362**  
 STUDY OF THE SOFT GAMMA-RAY REPEATERS  
 08/29/2000 - 08/31/2001 FY00: \$7,900 Total: \$7,900  
 Prin. Invest.: E P LIANG  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1444** **RICE UNIVERSITY** **8363**  
 A QUANTUM DEGENERATE FERMI GAS OF 6LI ATOMS  
 02/11/1998 - 01/31/2001 FY00: \$75,000 Total: \$207,000  
 Prin. Invest.: R G HULET  
 Tech. Officer: MSFC/D HUBBARD  
 CASE Category: 13 - PHYSICS

**NAG 8 1467** **RICE UNIVERSITY** **8364**  
 INFLUENCE OF REDUCED GRAVITY CONDITIONS ON THE OPTIMIZED  
 GROWTH AND DEPOSITION OF METAL NANOSHELL  
 03/06/1998 - 01/31/2001 FY00: \$85,000 Total: \$171,167  
 Prin. Invest.: N J HALAS  
 Tech. Officer: MSFC/C L TALLEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 9 929** **RICE UNIVERSITY** **8365**  
 EVALUATION OF ADVANCED MATERIALS FOR HYPERVELOCITY IMPACT  
 SHIELDING PHASE I  
 05/20/1997 - 10/31/2000 FY00: \$0 Total: \$160,756  
 Prin. Invest.: Y C ANGEL  
 Tech. Officer: JSC/J L CREWS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 948** **RICE UNIVERSITY** **8366**  
 ANALYTICAL MODELING OF A CRYOGENIC TANK  
 07/07/1997 - 12/30/1999 FY00: \$0 Total: \$149,952  
 Prin. Invest.: Y BAYAZITOGLU  
 Tech. Officer: JSC/T A PETERS  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 978** **RICE UNIVERSITY** **8367**  
 DEVELOPMENT OF PLASMA INJECTOR FOR VSIPR  
 10/17/1997 - 09/30/2001 FY00: \$58,000 Total: \$128,412  
 Prin. Invest.: A A CHAN  
 Tech. Officer: JSC/F CHANG-DIAZ  
 CASE Category: 13 - PHYSICS

**NAG 9 1049** **RICE UNIVERSITY** **8368**  
 LASER ABSORPTION SENSORS  
 08/04/1998 - 08/05/2001 FY00: \$149,880 Total: \$299,764  
 Prin. Invest.: F K TITTLE  
 Tech. Officer: JPL/D L JAN  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 9 1059** **RICE UNIVERSITY** **8369**  
 COMPUTATIONAL METHODS  
 12/14/1998 - 12/15/2000 FY00: \$49,925 Total: \$86,483  
 Prin. Invest.: T E TEZDUYAR  
 Tech. Officer: JSC/F MARTIN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 1193** **RICE UNIVERSITY** **8370**  
 TO PROVIDE ANALYTICAL MEASUREMENT SERVICES  
 02/03/2000 - 08/30/2000 FY00: \$43,000 Total: \$43,000  
 Prin. Invest.: F K TITTLE  
 Tech. Officer: JSC/J GRAF  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 9 1249** **RICE UNIVERSITY** **8371**  
 APPLICATION OF MACHINE LEARNING TO THE CONTROL OF ADVANCED  
 LIFE SUPPORT SYSTEMS  
 07/19/2000 - 12/31/2000 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: D SUBRAMANIAN  
 Tech. Officer: JSC/C L FARMER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 3 97017** **RICE UNIVERSITY** **8372**  
 NRA-INTERFACIAL CONTROL OF HIGH TEMPERATURE FIBER/ MATRIX  
 COMPOSITES VIA NOVEL PRECURSOR CHEMISTRY  
 11/27/1996 - 11/26/1998 FY00: -\$346 Total: \$147,471  
 Prin. Invest.: A R BARRON, D L CALLAHAN  
 Tech. Officer: GRC/S FARMER  
 CASE Category: 12 - CHEMISTRY

**NCC 1 234** **RICE UNIVERSITY** **8373**  
 AUTOMATED ADJOINT GENERATION MY 1/3  
 07/03/1996 - 11/30/1998 FY00: -\$23 Total: \$173,917  
 Prin. Invest.: A CARLE  
 Tech. Officer: LARC/L L GREEN  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NCC 5 311** **RICE UNIVERSITY** **8374**  
 MUSEUMS TEACHING PLANET EARTH(UTPE)  
 04/11/1998 - 02/28/2001 FY00: \$450,000 Total: \$1,353,000  
 Prin. Invest.: P REIFF  
 Tech. Officer: GSFC/A TUYAHOV  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 9 77** **RICE UNIVERSITY** **8375**  
 ADVANCED NANOTECHNOLOGY MATERIALS AND APPLICATIONS  
 10/29/1998 - 10/30/2002 FY00: \$1,000,000 Total: \$1,400,000  
 Prin. Invest.: R C SMALLEY  
 Tech. Officer: JSC/G K HORIUCHI  
 CASE Category: 12 - CHEMISTRY

**NGT 1 52215** **RICE UNIVERSITY** **8376**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/01/1999 - 08/31/2000 FY00: \$3,666 Total: \$25,666  
 Prin. Invest.: S M KELLOGG, S S CULLIS  
 Tech. Officer: LARC/P J HALEY, LARC/R JOSLIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 2 52252** **RICE UNIVERSITY** **8377**  
 MULTIWAVELENGTH STUDIES OF WOLF-RAYET GALAXIES  
 09/30/1998 - 10/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: D J DUFOR  
 Tech. Officer: ARC/D J HOLLENBACH  
 CASE Category: 11 - ASTRONOMY

**NGT 5 34** **RICE UNIVERSITY** **8378**  
 THE SOLAR WIND INTERACTION WITH THE MARTIAN ATMOSPHERE  
 07/24/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: P A CLOUTIER  
 Tech. Officer: GSFC/G A SOFFEN, GSFC/M ACUNA  
 CASE Category: 11 - ASTRONOMY

**NGT 8 52814** **RICE UNIVERSITY** **8379**  
 GRAD STUDENT RESEARCHERS PROGRAM  
 07/25/1996 - 06/30/1999 FY00: -\$1,387 Total: \$62,780  
 Prin. Invest.: A W CRIPER  
 Tech. Officer: MSFC/G FISHMAN  
 CASE Category: 13 - PHYSICS

**NGT 8 52834 RICE UNIVERSITY 8380**  
 GRADUATE STUDENT RESEARCHERS PROGRAM FOR DONNA DEMPSEY  
 09/26/1996 - 06/30/1999 FY00: -\$1,909 Total: \$62,258  
 Prin. Invest.: T W HILL  
 Tech. Officer: MSFC/T MOORE  
 CASE Category: 13 - PHYSICS

**NGT 9 19 RICE UNIVERSITY 8381**  
 NOVEL LASER BASED GAS SENSORS FOR TRAVE GAS DETECTION IN A SPACECRAFT HABITAT  
 08/23/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: F K TITTEL  
 Tech. Officer: JSC/J C GRAF  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NGT 9 23 RICE UNIVERSITY 8382**  
 UNDERSTANDING PROPERTIES OF NANOTUBE REINFORCED ..  
 05/30/1997 - 06/30/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: E V BARRERA  
 Tech. Officer: JSC/B FILES  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 8 52875 SAINT MARY'S UNIVERSITY-SAN ANTONIA 8383**  
 "KIT FOR EXTERNAL REPAIR OF MODULE IMPACTS ADHESIVE FLOW PERFORMANCE STUDY"  
 07/28/1999 - 08/13/2001 FY00: \$0 Total: \$22,000  
 Prin. Invest.: R MORAS  
 Tech. Officer: MSFC/J DOWDY  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 9 975 SAN ANTONIO COLLEGE 8384**  
 SPACE AND GEOSCIENCE PROJECT  
 09/25/1997 - 01/15/2000 FY00: \$0 Total: \$390,367  
 Prin. Invest.: C GONZALES  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 9 00106 SAN JACINTO COLLEGE 8385**  
 COMPUTER TRAINING  
 09/29/2000 - 09/30/2001 FY00: \$150,000 Total: \$150,000  
 Prin. Invest.: N J ANTHA  
 Tech. Officer: JSC/D DENTON-MISFELDT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 4582 SOUTHERN METHODIST UNIVERSITY 8386**  
 CORONAE AND CHASMATA:IMPLICATIONS FOR TERRRESTRIAL  
 05/29/1997 - 05/14/2001 FY00: \$61,750 Total: \$249,866  
 Prin. Invest.: D L HANSEN  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4809 SOUTHERN METHODIST UNIVERSITY 8387**  
 TETONIC EVOLUTION OF PLANET SURFACES  
 05/19/1997 - 05/14/2001 FY00: \$0 Total: \$64,435  
 Prin. Invest.: D L HANSEN  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9142 SOUTHERN METHODIST UNIVERSITY 8388**  
 TECTONIC EVOLUTION OF PLANET SURFACES  
 02/29/2000 - 04/14/2003 FY00: \$23,750 Total: \$23,750  
 Prin. Invest.: V L HANSEN  
 Tech. Officer: GSFC/J A GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAS 1 99100 SOUTHERN METHODIST UNIVERSITY 8389**  
 UNCOOLED YTTRIUM BARIUM COPPER OXIDE THERMAL DETECTORS FOR ADVANCED BROAD BAND IR AND FIR  
 09/27/1999 - 09/26/2000 FY00: \$59,942 Total: \$110,122  
 Prin. Invest.: Z CELIK-BUTLER, D BUTLER  
 Tech. Officer: LARC/E KIST, JR.  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 9 1019 SOUTHWEST TEXAS JUNIOR COLLEGE 8390**  
 PRECOLLEGE AWARD FOR EXCELLENCE PACE/MSET  
 05/28/1998 - 08/31/2001 FY00: \$98,744 Total: \$298,420  
 Prin. Invest.: A HERNANDEZ, JR.  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1367 SOUTHWEST TEXAS STATE UNIVERSITY 8391**  
 A NASA/UNIVERSITY JOINT VENTURE IN SPACE SCIENCE (JOVE). PROVIDES 1ST YEAR FUNDING  
 05/28/1997 - 08/31/2000 FY00: \$8,257 Total: \$31,814  
 Prin. Invest.: S F TARSITANO  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 1 324 SOUTHWEST TEXAS STATE UNIVERSITY 8392**  
 LOW DIELECTRIC POLYMERS  
 12/08/1998 - 11/30/1999 FY00: \$0 Total: \$69,872  
 Prin. Invest.: P E CASSIDY, M BLANDA  
 Tech. Officer: LARC/A K ST. CLAIR, LARC/D M STOAKLEY  
 CASE Category: 12 - CHEMISTRY

**NCC 1 376 SOUTHWEST TEXAS STATE UNIVERSITY 8393**  
 LOW EIELECTRIC POLYMERS  
 03/22/2000 - 01/31/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: P E CASSIDY, M T BLANDA  
 Tech. Officer: LARC/D M STOAKLEY/C C FAY  
 CASE Category: 12 - CHEMISTRY

**NCC 9 54 SOUTHWEST TEXAS STATE UNIVERSITY 8394**  
 ORAL HISTORY RESEARCH PROJECT  
 03/01/1999 - 12/31/2001 FY00: \$11,000 Total: \$27,779  
 Prin. Invest.: K MARGERISON  
 Tech. Officer: JSC/W A LARSEN  
 CASE Category: 73 - HISTORY

**NAG 1 1896 TEXAS A&M UNIVERSITY 8395**  
 OBSERVATIONAL AND MODELING STUDIES OF TRANSPORT AND MIXING IN THE STRATOSPHERE AND TROPOSPHERE  
 02/21/1997 - 07/31/2000 FY00: \$0 Total: \$220,929  
 Prin. Invest.: K P BOWMAN  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1340 TEXAS A&M UNIVERSITY 8396**  
 ADAPTATIONS OF VISCERAL & CEREBRAL RESISTANCE ARTICLES TO  
 SIMULATED MICROGRAVITY  
 07/16/1999 - 01/14/2001 FY00: \$152,240 Total: \$238,679  
 Prin. Invest.: M D DELP  
 Tech. Officer: ARC/M M AVERNER, ARC/R MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1980 TEXAS A&M UNIVERSITY 8397**  
 LOCAL HEAT TRANSFER DISTRIBUTIONS ROTATING MULTIPASS PASSAGES  
 IN TURBINE AIRFOILS W/WO FILM EJECTION  
 11/01/1996 - 07/31/1999 FY00: -\$377 Total: \$172,034  
 Prin. Invest.: S C LAU  
 Tech. Officer: GRC/S A HIPPESTEELE  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1989 TEXAS A&M UNIVERSITY 8398**  
 FAIL SAFE MAGNETIC BEARING DEVELOPMENT  
 11/15/1996 - 10/31/1999 FY00: \$0 Total: \$190,059  
 Prin. Invest.: A B PALAZZOLO  
 Tech. Officer: GRC/G T MONTAGUE  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 1990 TEXAS A&M UNIVERSITY 8399**  
 COMPUTATIONAL SOFTWARE FOR MAGNETIC BEARING SYSTEM  
 DEVELOPMENT  
 11/15/1996 - 07/31/2000 FY00: \$0 Total: \$147,202  
 Prin. Invest.: A B PALAZZOLO  
 Tech. Officer: GRC/G T MONTAGUE  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 3 2002 TEXAS A&M UNIVERSITY 8400**  
 TURBINE BLADE TIP HEAT TRANSFER & FILM COOLING STUDY USING A  
 TRANSIENT LIQUID CRYSTAL IMAGE METHOD  
 01/21/1997 - 12/30/2000 FY00: \$0 Total: \$233,696  
 Prin. Invest.: J C HAN, S V EKKAD  
 Tech. Officer: GRC/R J BOYLE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 4 106 TEXAS A&M UNIVERSITY 8401**  
 R&D OF AN INTEGRATED CIRCUIT IMPLEMENTATION OF SIGNAL  
 CONDITIONING A/C FOR SIMULTANEOUS MEASURE.  
 03/15/1996 - 08/31/1999 FY00: -\$1,559 Total: \$106,787  
 Prin. Invest.: S EMBABI  
 Tech. Officer: DFRCA PARKER, JR.  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 4 212 TEXAS A&M UNIVERSITY 8402**  
 A STUDY OF SYSTEM IDENTIFICATION APPROACHES FOR FLUTTER  
 FLIGHT TESTS TEES #00-564  
 06/28/2000 - 09/30/2000 FY00: \$35,000 Total: \$35,000  
 Prin. Invest.: D STRGANAC  
 Tech. Officer: DFRCA R LIND  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 3754 TEXAS A&M UNIVERSITY 8403**  
 SKELETAL MUSCLE ARTERIOLAR ADAPTATIONS TO STIMULAT  
 11/22/1996 - 05/14/2000 FY00: \$0 Total: \$223,669  
 Prin. Invest.: M D DELP  
 Tech. Officer: GSFC/M A SHEPANEK  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 3966 TEXAS A&M UNIVERSITY 8404**  
 CHARACTERIZATION OF THE SPATIAL-TEMPORAL VARIABILITY BY REMOTE  
 SENSING  
 03/03/1997 - 06/30/1999 FY00: \$0 Total: \$95,000  
 Prin. Invest.: J B VALDES  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4746 TEXAS A&M UNIVERSITY 8405**  
 MICROWAVE RADIOMETER AND MULTI-INSTRUMENT ALGORITHM  
 06/26/1997 - 06/30/2001 FY00: \$62,400 Total: \$350,400  
 Prin. Invest.: T T WILHEIT  
 Tech. Officer: GSFC/O A THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4753 TEXAS A&M UNIVERSITY 8406**  
 STATISTICAL SAMPLING AND ESTIMATION PROBLEMS USING  
 06/27/1997 - 06/30/2000 FY00: \$68,894 Total: \$346,439  
 Prin. Invest.: G R NORTH  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4776 TEXAS A&M UNIVERSITY 8407**  
 VALIDATION AND ESTIMATES OF TROPICAL RAIN AND DIAB  
 06/27/1997 - 06/30/2001 FY00: \$155,000 Total: \$723,102  
 Prin. Invest.: M I BIGGERSTAFF  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4796 TEXAS A&M UNIVERSITY 8408**  
 VALIDATION AND TRANSFERABILITY OF TROPICAL RAIN  
 08/22/1997 - 09/30/2000 FY00: \$0 Total: \$391,129  
 Prin. Invest.: G J NORTH  
 Tech. Officer: GSFC/O THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6446 TEXAS A&M UNIVERSITY 8409**  
 WORLD OCEAN CIRCULATION EXPERIMENT: SUPPORT FOR THE U.S.  
 WOCE OFFICE  
 11/25/1997 - 12/31/2000 FY00: \$125,000 Total: \$375,000  
 Prin. Invest.: W D NOWLIN  
 Tech. Officer: GSFC/J CAMPBELL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6481 TEXAS A&M UNIVERSITY 8410**  
 A DISTRIBUTED ENVIRONMENTAL DATA SERVER  
 11/18/1997 - 09/30/1999 FY00: -\$6 Total: \$270,685  
 Prin. Invest.: D P BOWMAN  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7751 TEXAS A&M UNIVERSITY 8411**  
 DOES SOUTHERN OCEAN SEA ICE AFFECT INTERANNUAL OCEAN VARI-  
 ABILITY  
 11/19/1998 - 12/31/2001 FY00: \$57,322 Total: \$119,516  
 Prin. Invest.: A STOESEL  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8706 TEXAS A&M UNIVERSITY 8412**  
 NOX PRODUCTION BY LIGHTNING AND ITS IMPACT ON THE CHEMISTRY OF  
 THE UPPER TROPOSPHERE AND LOWER STRATOSPHERE  
 07/19/1999 - 08/31/2001 FY00: \$84,914 Total: \$183,006  
*Prin. Invest.:* R ZHANG  
*Tech. Officer:* GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9408 TEXAS A&M UNIVERSITY 8413**  
 MODELING TROPICAL ATLANTIC VARIABILITY  
 04/08/2000 - 06/30/2003 FY00: \$35,000 Total: \$35,000  
*Prin. Invest.:* P CHANG  
*Tech. Officer:* GSFC/K BERGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9455 TEXAS A&M UNIVERSITY 8414**  
 CONTINUED DEVELOPMENT OF SNOW AND SEA ICE ALBEDO ALGORITHMS  
 FOR MODERATE RESOLUTION IMAGING  
 04/12/2000 - 10/15/2000 FY00: \$19,849 Total: \$19,849  
*Prin. Invest.:* A KLEIN  
*Tech. Officer:* GSFC/D K HALL  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9485 TEXAS A&M UNIVERSITY 8415**  
 DEVELOPMENT OF A LONG-RANGE SCIENCE PLAN FOR SUB-GLACIAL  
 LAKE EXPLORATION  
 04/25/2000 - 04/30/2001 FY00: \$27,335 Total: \$27,335  
*Prin. Invest.:* M C KENNICUT  
*Tech. Officer:* GSFC/M MEYER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9649 TEXAS A&M UNIVERSITY 8416**  
 STATISTICAL SAMPLING AND ESTIMATION PROBLEMS USING TRMM DATA  
 06/26/2000 - 06/30/2001 FY00: \$40,180 Total: \$40,180  
*Prin. Invest.:* G R NORTH  
*Tech. Officer:* GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9697 TEXAS A&M UNIVERSITY 8417**  
 VALIDATION OF TRMM RAINFALL AND HEATING ESTIMATES  
 07/26/2000 - 11/30/2000 FY00: \$10,000 Total: \$10,000  
*Prin. Invest.:* M I BIGGERSTAFF  
*Tech. Officer:* GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9729 TEXAS A&M UNIVERSITY 8418**  
 PHYSICAL VALIDATION OF TMI OCEANIC RAINFALL RETRIEVALS  
 08/22/2000 - 11/30/2000 FY00: \$50,600 Total: \$50,600  
*Prin. Invest.:* T WILHEIT  
*Tech. Officer:* GSFC/R LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1343 TEXAS A&M UNIVERSITY 8419**  
 FOR RESEARCH "ACTIVE VIBRATION CONTROL SYSTEM DEVELOPMENT  
 FOR MICROGRAVITY ISOLATION"  
 04/14/1997 - 02/28/1999 FY00: -\$8,269 Total: \$31,861  
*Prin. Invest.:* A B PALAZZOLO  
*Tech. Officer:* MSFC/M S WHORTON, MSFC/D C ALHORN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 8 1395 TEXAS A&M UNIVERSITY 8420**  
 R/S "BULK FLOW ANALYSIS OF HYBRID THRUST BEARINGS FOR  
 ADVANCED CRYOGENIC TURBOPUMPS"  
 07/21/1997 - 12/31/2000 FY00: \$0 Total: \$73,464  
*Prin. Invest.:* L SAN ANDREAS  
*Tech. Officer:* MSFC/R THOM  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1491 TEXAS A&M UNIVERSITY 8421**  
 INTENSITY AND ORGANIZATION OF CONVECTION IN HURRICANES AND  
 TROPICAL CYCLONES BEFORE AND AFTER  
 01/30/1998 - 02/01/2001 FY00: \$52,019 Total: \$153,956  
*Prin. Invest.:* E J ZIPSER  
*Tech. Officer:* MSFC/J ARNOLD, MSFC/R K KAKAR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1618 TEXAS A&M UNIVERSITY 8422**  
 R&D OF HIGH GAIN, HIGH EFFICIENCY, CIRCULAR POLARIZED  
 RECTENNAS  
 07/06/1999 - 01/31/2001 FY00: \$200,000 Total: \$350,000  
*Prin. Invest.:* K CHANG  
*Tech. Officer:* MSFC/J HOWELL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 331 TEXAS A&M UNIVERSITY 8423**  
 SPACE RADIATION/MATERIALS/DEVICES  
 01/15/1989 - 03/01/1999 FY00: -\$21,956 Total: \$482,456  
*Prin. Invest.:* J S UNDER  
*Tech. Officer:* JSC/C HERMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 9 807 TEXAS A&M UNIVERSITY 8424**  
 COMBINING THE PHOTOGRAPHY/LANDSCAPE ECOLOGY TO PRODUCE A  
 PREDICTIVE MODEL  
 08/02/1995 - 06/30/2000 FY00: -\$3 Total: \$64,311  
*Prin. Invest.:* J GIARDINO  
*Tech. Officer:* JSC/K LULLA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 9 821 TEXAS A&M UNIVERSITY 8425**  
 NONINVASIVE NEAR INFRARED SENSOR FOR CONTINUOUS CELLULOSE  
 MEASUREMENT  
 08/11/1995 - 09/17/1999 FY00: -\$1,700 Total: \$388,550  
*Prin. Invest.:* G COTE  
*Tech. Officer:* JSC/N PELLIS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 894 TEXAS A&M UNIVERSITY 8426**  
 STABILITY OF 2-PHASE FLOW MANIFOLDED SYSTEMS UNDER IG AND OG  
 CONDITIONS  
 07/19/1996 - 08/31/1999 FY00: -\$3,362 Total: \$151,620  
*Prin. Invest.:* D LANGHANS  
*Tech. Officer:* JSC/K HENDERSON  
 CASE Category: 55 - AGRICULTURE

**NAG 9 931 TEXAS A&M UNIVERSITY 8427**  
 NASA ASEE SUMMER FACULTY FELLOWSHIP PROGRAM  
 03/17/1997 - 09/30/1999 FY00: -\$2 Total: \$509,047  
*Prin. Invest.:* W A HYMAN, J PRITCHARD  
*Tech. Officer:* JSC/D G SICKOREZ  
 CASE Category: 49 - ENGINEERING, OTHER



## NASA'S UNIVERSITY PROGRAM

TEXAS

**NAG 9 1067 TEXAS A&M UNIVERSITY 8428**  
 PLANT GROWTH AND METABOLISM AT SUB-AMBIENT ATMOSPHERE PRES-  
 SURES  
 01/06/1999 - 12/31/2001 FY00: \$120,475 Total: \$347,162  
 Prin. Invest.: M C DREW  
 Tech. Officer: JSC/D BARTA  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1070 TEXAS A&M UNIVERSITY 8429**  
 NONINTRUSIVE METHOD FOR STIRRED SEPARATOR INVENTORY SENSING  
 01/22/1999 - 12/31/2000 FY00: -\$15,900 Total: \$55,739  
 Prin. Invest.: R WILLIAMS, F BEST, I CARSON  
 Tech. Officer: JSC/S D GLEN  
 CASE Category: 13 - PHYSICS

**NAG 9 1077 TEXAS A&M UNIVERSITY 8430**  
 AUTONOMAUS ATTITUDE DETERMINATION FOR ISS APPLICATIONS USING  
 PSUEDOLITE  
 01/14/1999 - 12/22/1999 FY00: -\$3,568 Total: \$53,644  
 Prin. Invest.: J L CRASSIDIS, NONE  
 Tech. Officer: JSC/J W BELL  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 9 1085 TEXAS A&M UNIVERSITY 8431**  
 EVALUATION OF SYNAMIC INVERSION AS A FLIGHT CONTROL  
 02/09/1999 - 05/31/2000 FY00: \$0 Total: \$64,307  
 Prin. Invest.: J L VALASEK, D T WARD  
 Tech. Officer: JSC/R M ONDLER, JSC/S R MUNDAY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 9 1086 TEXAS A&M UNIVERSITY 8432**  
 LOW THRUST VARIABLE ISP ROCKET TRAJECTORY OPTIMIZATION AND  
 ANALYSIS STUDY  
 02/08/1999 - 09/30/2000 FY00: \$0 Total: \$30,000  
 Prin. Invest.: S R VACLALIC  
 Tech. Officer: JSC/E M BRADEN  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 9 1119 TEXAS A&M UNIVERSITY 8433**  
 STABILITY OF RETORT PROCESSED MILK PRODUCTS  
 07/01/1999 - 06/30/2001 FY00: \$0 Total: \$60,000  
 Prin. Invest.: R L RICHTER  
 Tech. Officer: JSC/C T BOURLAND  
 CASE Category: 55 - AGRICULTURE

**NAG 9 1145 TEXAS A&M UNIVERSITY 8434**  
 SEPARATION OF LIQUID PHASE FR GAS PHASE  
 09/09/1999 - 11/30/2000 FY00: \$100,000 Total: \$150,000  
 Prin. Invest.: J SEYED-YAGOOBI, F R BEST  
 Tech. Officer: JSC/E K UNGAR  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 1188 TEXAS A&M UNIVERSITY 8435**  
 NAVIGATION SYSTEMS & TECHNOLOGY LAB (NSR) ATTITUDE DETERMINA-  
 TION  
 01/28/2000 - 12/31/2001 FY00: \$159,345 Total: \$159,345  
 Prin. Invest.: J L CRASSIDIS  
 Tech. Officer: JSC/J W BELL  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 9 1231 TEXAS A&M UNIVERSITY 8436**  
 SYNTHESIS AND EVALUATION OF ROBUST DYNAMIC INVERSION  
 05/22/2000 - 05/22/2001 FY00: \$97,320 Total: \$97,320  
 Prin. Invest.: J L VALASEK  
 Tech. Officer: JSC/S R MONDAY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 9 1239 TEXAS A&M UNIVERSITY 8437**  
 VARIABLE ISP ROCKET TRAJECTORY OPTIMIZATION  
 06/30/2000 - 02/01/2001 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: S R VADALI  
 Tech. Officer: JSC/E M BRADEN  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAGW 1194 TEXAS A&M UNIVERSITY 8438**  
 CENTER FOR THE COMMERCIAL DEVE. OF SPACE POWER  
 09/30/1987 - 10/31/1998 FY00: \$0 Total: \$10,643,300  
 Prin. Invest.: F R BEST, D R BOYLE  
 Tech. Officer: HQ/C LIVINGSTON, HQ/V CEVENINI  
 CASE Category: 45 - ELECTRICAL ENGR

**NAS 5 32593 TEXAS A&M UNIVERSITY 8439**  
 STUDY ENTITLED MIMR SCIENCE TEAM MEMBERSHIP  
 12/15/1993 - 12/31/2000 FY00: \$200,000 Total: \$1,032,013  
 Prin. Invest.: T T WILHEIT  
 Tech. Officer: GSFC/P HWONG  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 9 97002 TEXAS A&M UNIVERSITY 8440**  
 TEXAS A & M LOW-SPEED WIND TUNNEL (LSWT) TESTING  
 04/02/1997 - 04/02/2001 FY00: \$75,477 Total: \$188,920  
 Prin. Invest.: J L MARTINEZ  
 Tech. Officer: JSC/S G LABBE, JSC/C J CERIMELE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAS 9 99096 TEXAS A&M UNIVERSITY 8441**  
 PROPORTIONAL COUNTERS FOR NEUTRON MEASUREMENTS  
 08/17/1999 - 02/28/2001 FY00: \$0 Total: \$117,096  
 Prin. Invest.: L A BRABY  
 Tech. Officer: JSC/G D BADHWAR  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 386 TEXAS A&M UNIVERSITY 8442**  
 MICRO SPACECRAFT ATTITUDE SENSOR SYSTEM (MSAS) NASA HQS  
 CETDP COMPETITION  
 03/13/2000 - 01/31/2003 FY00: \$200,000 Total: \$200,000  
 Prin. Invest.: J L JUNKINS  
 Tech. Officer: LARC/L G HORTA  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NCC 2 1186 TEXAS A&M UNIVERSITY 8443**  
 ARTERIAL REMODELING AND FUNCTIONAL ADAPTATIONS INDUCED BY  
 MICROGRAVITY  
 03/22/2000 - 02/14/2001 FY00: \$390,000 Total: \$390,000  
 Prin. Invest.: M D DELP  
 Tech. Officer: ARC/M F VASQUES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 3 516 TEXAS A&M UNIVERSITY 8444**  
 THE CENTER FOR SPACE POWER  
 11/26/1996 - 11/03/2001 FY00: \$125,000 Total: \$2,712,001  
*Prin. Invest.:* F R BEST  
*Tech. Officer:* GRC/J E CALOGERAS, GRC/R L SOVIE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 3 602 TEXAS A&M UNIVERSITY 8445**  
 THERMAL CONTROL AND ENHANCEMENT OF HEAT TRANSPORT CAPACITY  
 OF CRYOGENICS CAPILLARY PUMPED LOOPS AND  
 03/20/1998 - 01/28/2002 FY00: \$71,976 Total: \$206,687  
*Prin. Invest.:* J SEYED-YAGOUBI, J M OCHTERBECK, J 3 BYRAN  
*Tech. Officer:* GRC/F P CHIARAMONTE  
*CASE Category:* 46 - MECHANICAL ENGR

**NCC 3 762 TEXAS A&M UNIVERSITY 8446**  
 SMART STRUCTURAL COMPONENTS FOR INCREASED FLIGHT SPEED,  
 SAFETY & CAPACITY USING MAGNETIC BEARINGS A  
 01/18/2000 - 12/02/2001 FY00: \$107,823 Total: \$107,823  
*Prin. Invest.:* B D PALAZZOLO  
*Tech. Officer:* GRC/G T MONTAGUE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 3 793 TEXAS A&M UNIVERSITY 8447**  
 EXPERIMENTAL STUDY OF THE EFFECTS OF WAKES ON SEPARATION IN  
 LOW PRESSURE TURBINE FLOW  
 04/20/2000 - 05/31/2002 FY00: \$86,735 Total: \$86,735  
*Prin. Invest.:* I SCHOEIRI  
*Tech. Officer:* GRC/D ASHPIS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 4 111 TEXAS A&M UNIVERSITY 8448**  
 MULTIREOLUTION & TIME-FREQUENCY CHARACTERIZATIONS OF  
 NONLINEAR DYNAMICS IN AEROELASTIC & AERO SYS  
 04/09/1997 - 11/30/1998 FY00: -\$1 Total: \$49,999  
*Prin. Invest.:* T W STRGANAC, A KURDILA  
*Tech. Officer:* DFRC/M BRENNER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 5 359 TEXAS A&M UNIVERSITY 8449**  
 MISSION GEOGRAPHY  
 08/24/1998 - 07/31/2001 FY00: \$342,592 Total: \$900,542  
*Prin. Invest.:* S BEDNARZ  
*Tech. Officer:* HQ/P MOUNTJOY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 448 TEXAS A&M UNIVERSITY 8450**  
 VISION-BASED NAVIGATION FOR SPACECRAFT FORMATION FLYING  
 12/21/1999 - 12/31/2001 FY00: \$288,760 Total: \$288,760  
*Prin. Invest.:* D CRASSIDIS  
*Tech. Officer:* GSFC/L MARKLEY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 5 456 TEXAS A&M UNIVERSITY 8451**  
 UNSOLICITED PROPOSAL FOR A COOPERATIVE AGREEMENT BETWEEN  
 THE TEXAS ENGINEERING EXPERIMENT STATION  
 03/03/2000 - 02/28/2001 FY00: \$1,045,000 Total: \$1,045,000  
*Prin. Invest.:* F R BEST  
*Tech. Officer:* GSFC/D BREWER  
*CASE Category:* 11 - ASTRONOMY

**NCC 5 517 TEXAS A&M UNIVERSITY 8452**  
 BUILDING AN INTERDISCIPLINARY RESEARCH INFRASTRUCTURE IN  
 APPLIED COMPUTER SCIENCE, GEOGRAPHIC INFOR  
 09/25/2000 - 09/30/2001 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* C STEIDLEY  
*Tech. Officer:* GSFC/C PERSON  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 8 169 TEXAS A&M UNIVERSITY 8453**  
 R/S INVESTIGATION OF NEURONAL PHYSIOLOGY IN SIMULATED  
 MICROGRAVITY USING SMART FLUORESCENT ...  
 03/12/1999 - 11/30/2002 FY00: \$137,000 Total: \$238,000  
*Prin. Invest.:* G COTE  
*Tech. Officer:* JSC/M ANDERSON  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 8 177 TEXAS A&M UNIVERSITY 8454**  
 TWO-PHASE, PACKAGED BED WEIGHTLESS TESTING  
 02/09/1999 - 02/08/2000 FY00: -\$17,882 Total: \$71,410  
*Prin. Invest.:* F R BEST  
*Tech. Officer:* MSFC/D L CARTER  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NCC 9 69 TEXAS A&M UNIVERSITY 8455**  
 NASA COMMERCIAL SPACE TO ADOPT & SUPPORT COMMERCIAL  
 ENGINEERING ON ISS  
 05/07/1998 - 05/06/2001 FY00: \$992,000 Total: \$1,932,789  
*Prin. Invest.:* D R BOYLE, M SCHULLER, F R BEST  
*Tech. Officer:* JSC/C G PARRA, JSC/R C MAHL  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 5 30033 TEXAS A&M UNIVERSITY 8456**  
 LIGHTNING AND ITS RELATIONSHIP TO 85 GHZ ICE SCATTER IN THE GLOBAL  
 TROPICS  
 10/17/1996 - 08/31/1999 FY00: -\$13 Total: \$65,987  
*Prin. Invest.:* E ZIPSER  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 5 30211 TEXAS A&M UNIVERSITY 8457**  
 HYDROLOGIC CONSEQUENCES OF SHRUB SAVANNA EXPANSION  
 STUDENT: WYLIE N. HARRIS  
 08/20/1999 - 08/31/2001 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* T BOUTTON  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 9 34 TEXAS A&M UNIVERSITY 8458**  
 KINETICS OF NITRIFICATION BY ISO TOPE DILUTION IN GROWTH OF  
 WHEAT USING ZEOPONICS  
 06/04/1998 - 07/01/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* R W WEAVER  
*Tech. Officer:* JSC/D G SICKOREZ  
*CASE Category:* 55 - AGRICULTURE

**NGT 9 39 TEXAS A&M UNIVERSITY 8459**  
 1999 SUMMER FACULTY FELLOWSHIP PROGRAM  
 04/21/1999 - 12/31/2000 FY00: \$13,366 Total: \$385,000  
*Prin. Invest.:* W A HYMAN, R BANNEROT  
*Tech. Officer:* JSC/D SICKOREZ  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NASA'S UNIVERSITY PROGRAM**

**TEXAS**

**NAG 5 9196 TEXAS A&M UNIVERSITY-CORPUS CHRISTI 8480**  
 THE TRANSLINGUAL EARTH SYSTEM SCIENCE EDUCATION CENTER  
 03/10/2000 - 09/14/2001 FY00: \$154,580 Total: \$154,580  
 Prin. Invest.: G BLOUNT  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7159 TEXAS A&M UNIVERSITY-KINGSVILLE 8461**  
 SIMULATION SUPPORT FOR THE DEVELOPMENT OF GLAST  
 03/16/1998 - 08/31/2001 FY00: \$33,800 Total: \$104,000  
 Prin. Invest.: D SUSON  
 Tech. Officer: GSFC/D THOMPSON  
 CASE Category: 13 - PHYSICS

**NAG 8 1650 TEXAS A&M UNIVERSITY-KINGSVILLE 8462**  
 EXPANDABLE SOFTWARE REUSE LIBRARY  
 01/20/2000 - 01/19/2001 FY00: \$29,291 Total: \$29,291  
 Prin. Invest.: B SCHREUR  
 Tech. Officer: MSFC/W LOVE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 9 1093 TEXAS A&M UNIVERSITY-KINGSVILLE 8463**  
 DESIGN OF LOW BIT RATE SIGNAL COMPRESSOR FOR EFFICIENT  
 RECORDING  
 04/26/1999 - 07/30/2001 FY00: \$98,987 Total: \$178,644  
 Prin. Invest.: S W PARK  
 Tech. Officer: JSC/K L HAMES  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 7040 TEXAS CHRISTIAN UNIVERSITY 8464**  
 CRITICAL TESTS OF STELLAR EVOLUTION (LTSA)  
 03/02/1998 - 02/28/2001 FY00: \$8,600 Total: \$24,900  
 Prin. Invest.: P MARCUM  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1356 TEXAS CHRISTIAN UNIVERSITY 8465**  
 EXPERIMENTAL ASSESSMENT OF MULTICOMPONENT EFFECTS IN DIFFU-  
 SION-DOMINATED TRANSPORT PROTEIN CRYSTAL  
 05/23/1997 - 11/30/2000 FY00: \$78,000 Total: \$269,000  
 Prin. Invest.: J G ALBRIGHT  
 Tech. Officer: MSFC/B L GUYNES, MSFC/J MAYO  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 8934 TEXAS COLLEGE 8466**  
 TEXAS COLLEGE CENTER FOR EXCELLENCE IN MATHEMATICS SCIENCE &  
 TECHNOLOGY & A TECHNOLOGY PLACE FOR KID  
 01/19/2000 - 01/14/2001 FY00: \$915,000 Total: \$915,000  
 Prin. Invest.: T NAMBOODIRI  
 Tech. Officer: GSFC/C PERSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1447 TEXAS SOUTHERN UNIVERSITY 8467**  
 DEVELOPMENT OF NATURAL LANGUAGE UNDERSTANDING GRAM MARS  
 FOR INTELLIGENT MONITORING  
 09/29/2000 - 09/14/2001 FY00: \$85,000 Total: \$85,000  
 Prin. Invest.: O H CRINER  
 Tech. Officer: ARC/Y O GAWDIAK, ARC/B J COLLINS  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 9 974 TEXAS SOUTHERN UNIVERSITY 8468**  
 SUPPORT NASA ENVIRONMENTAL INSTITUTE  
 09/25/1997 - 09/30/1999 FY00: \$0 Total: \$350,000  
 Prin. Invest.: J JONES  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 9 988 TEXAS SOUTHERN UNIVERSITY 8469**  
 ANALYSIS OF SELECTED PLANT NUTRIENT SOLUTIONS  
 03/19/1998 - 09/30/1999 FY00: \$0 Total: \$50,000  
 Prin. Invest.: R F WILSON  
 Tech. Officer: JSC/D BARTA  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NAG 9 1132 TEXAS SOUTHERN UNIVERSITY 8470**  
 FIELD TESTING  
 07/16/1999 - 12/31/2000 FY00: \$10,000 Total: \$43,000  
 Prin. Invest.: J HILL  
 Tech. Officer: JSC/M K EWERT  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 1194 TEXAS SOUTHERN UNIVERSITY 8471**  
 MOLD DEVELOPMENT IN HYDROPONICS  
 04/25/2000 - 04/24/2003 FY00: \$60,000 Total: \$60,000  
 Prin. Invest.: O A JEJELOWO  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 55 - AGRICULTURE

**NAG 9 1227 TEXAS SOUTHERN UNIVERSITY 8472**  
 SILICON UPTAKE IN HYDROPONICS BY GRAMINACEOUS CROP PLANTS  
 06/22/2000 - 06/30/2001 FY00: \$62,000 Total: \$62,000  
 Prin. Invest.: G A JEJEDOWO  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 55 - AGRICULTURE

**NCC 9 80 TEXAS SOUTHERN UNIVERSITY 8473**  
 HIGH PRESSURE LABORATORY  
 12/02/1998 - 05/31/2002 FY00: \$300,000 Total: \$599,675  
 Prin. Invest.: B L WILSON  
 Tech. Officer: JSC/C B AGEE  
 CASE Category: 12 - CHEMISTRY

**NAG 1 2192 TEXAS TECH UNIVERSITY 8474**  
 THE HEAVY OZONE PROBLEM NRA-98-OES-04  
 09/28/1999 - 12/31/2002 FY00: \$0 Total: \$50,129  
 Prin. Invest.: G I GELLENE  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1077 TEXAS TECH UNIVERSITY 8475**  
 MULTIPLEXED HOLOGRAPHIC DATA STORAGE IN BACTERIORH ODOPSIN  
 08/19/1996 - 11/30/1998 FY00: -\$6,203 Total: \$193,606  
 Prin. Invest.: D J MEHRL  
 Tech. Officer: ARC/C K GARY, ARC/M B REID  
 CASE Category: 22 - COMPUTER SCIENCE

## TEXAS

## NASA'S UNIVERSITY PROGRAM

**NAG 3 2005 TEXAS TECH UNIVERSITY 8476**  
 ARCJET ELECTRODE DEGRADATION RESEARCH  
 01/24/1997 - 05/15/2001 FY00: \$100,212 Total: \$890,930  
 Prin. Invest.: E A O'HAIR, M KRISTIANSEN, J C DICKENS  
 Tech. Officer: GRC/L R PINERO  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 5156 TEXAS TECH UNIVERSITY 8477**  
 OPTIMIZATION STUDIES FOR ACCESS CALORIMETRY INCREMENTAL  
 FUNDING FOR FIRST YEAR OF GRANT  
 03/26/1998 - 12/31/2000 FY00: \$29,200 Total: \$251,762  
 Prin. Invest.: R WIGMANS  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 9505 TEXAS TECH UNIVERSITY 8478**  
 DEVELOPMENT OF A PARALLEL VERSION OF SEQUEL WITH EXPERI-  
 MENTS ON & APPLICATION TO NEURAL NETWORK  
 04/26/2000 - 04/30/2001 FY00: \$90,000 Total: \$90,000  
 Prin. Invest.: D COOKE  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 2 5257 TEXAS TECH UNIVERSITY 8479**  
 INFORMATION INTEGRATION IN JUDGEMENTS OF TEMPORAL RANGE  
 03/02/1998 - 06/30/2000 FY00: \$0 Total: \$74,992  
 Prin. Invest.: P R DELUCIA  
 Tech. Officer: ARC/M K KAISER  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 9 108 TEXAS TECH UNIVERSITY 8480**  
 PLANT RESEARCH IN EDU & WATER REUSE/RECYCLING  
 07/07/2000 - 09/30/2001 FY00: \$915,000 Total: \$915,000  
 Prin. Invest.: J L SMITH, L V URBAN, E B PEFFLEY  
 Tech. Officer: JSC/D L HENNINGER, JSC/K R DAUES  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NGT 5 50151 TEXAS TECH UNIVERSITY 8481**  
 RE-ENGINEERING COMPUTER NETWORKS: PLANNING AND IM OGY  
 09/11/1997 - 09/30/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: S B YADAV  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1192 TEXAS WOMAN'S UNIVERSITY 8482**  
 VALUATION OF A DETAILED MECHANISM FOR HYDRAZINE DECOMPOSI-  
 TION  
 01/21/2000 - 07/06/2000 FY00: \$15,499 Total: \$15,499  
 Prin. Invest.: N E MEAGHER  
 Tech. Officer: JSC/R SAULSBERRY  
 CASE Category: 61 - PSYCHOLOGY BIOLOGY

**NAG 2 1284 UNIV HOUSTON-HOUSTON 8483**  
 A NON-INVASIVE ANALYSIS OF MUSCULOSKETAL COLLAGEN METABOLISM  
 FROM URINE OF RHESUS MONKEYS DURING A  
 01/26/1999 - 11/30/1999 FY00: \$0 Total: \$25,000  
 Prin. Invest.: A C VAILAS  
 Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1840 UNIV HOUSTON-HOUSTON 8484**  
 TWO-PHASE GAS-LIQUID FLOWS IN MICROGRAVITY: EXPERIMENTAL AND  
 THEORETICAL INVESTIGATION OF ANNULAR  
 05/02/1996 - 05/01/2001 FY00: \$20,000 Total: \$320,000  
 Prin. Invest.: V BALAKOTIAH, S JAYAWARDENA  
 Tech. Officer: GRC/B S MOTIL  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 5 4765 UNIV HOUSTON-HOUSTON 8485**  
 LL CHODRITES  
 06/06/1997 - 05/31/2001 FY00: \$0 Total: \$71,674  
 Prin. Invest.: D M REID  
 Tech. Officer: GSFC/D NAVATech. Officer: NONE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5126 UNIV HOUSTON-HOUSTON 8486**  
 GROUND AND BALLOON-BORNE OBSERVATIONS OF SPRITES AND JETS  
 07/02/1997 - 01/31/2000 FY00: \$0 Total: \$396,881  
 Prin. Invest.: E BERING  
 Tech. Officer: GSFC/E BERING  
 CASE Category: 13 - PHYSICS

**NAG 5 7840 UNIV HOUSTON-HOUSTON 8487**  
 WINDS, WATER BUDGETS, AND STABLE ISOTOPES IN TROPICAL  
 CYCLONES USING TRMM AND QUICKSCAT  
 01/06/1999 - 12/31/2000 FY00: \$52,154 Total: \$104,823  
 Prin. Invest.: J R LAWRENCE  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8126 UNIV HOUSTON-HOUSTON 8488**  
 SUPERCONDUCTING COATING ON SAPPHIRE MEMBRANE--GOAL IS TO  
 ATTEMPT IMPROVED STABILITY OF COATING  
 02/04/1999 - 01/31/2000 FY00: \$0 Total: \$3,600  
 Prin. Invest.: C (PAUL CHU)  
 Tech. Officer: GSFC/J C BRASUNAS  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 5 8140 UNIV HOUSTON-HOUSTON 8489**  
 THE ORIGINS OF TRANSLATION  
 02/03/1999 - 01/31/2001 FY00: \$75,360 Total: \$155,360  
 Prin. Invest.: D FOX  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1363 UNIV HOUSTON-HOUSTON 8490**  
 "EPITAXIAL GROWTH OF PROTEIN CRYSTALS ON SELF-ASSEMBLED  
 MONOLAYERS"  
 06/02/1997 - 11/30/2000 FY00: \$115,000 Total: \$419,000  
 Prin. Invest.: J M FRIEDMAN  
 Tech. Officer: MSFC/B GUYNES, MSFC/J MAYO  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1658 UNIV HOUSTON-HOUSTON 8491**  
 DEVELOPMENT OF SPACE RADIATION MONTE-CARLO COMPUT-ER  
 SIMULATION BASED ON FLUKA & ROOT CODE  
 05/01/2000 - 11/30/2003 FY00: \$70,000 Total: \$70,000  
 Prin. Invest.: L S PINSKY  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

## NASA'S UNIVERSITY PROGRAM

TEXAS

<b>NAG 9 867</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8492</b> NASA-ASEE SUMMER FACULTY FELLOWSHIPS 05/09/1996 - 06/06/2002      FY00: \$350,000                      Total: \$1,213,000 Prin. Invest.: R B BANNEROT Tech. Officer: JSC/D SICKOREZ CASE Category: 46 - MECHANICAL ENGR	<b>NAG 9 1152</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8500</b> THERAPEUTIC EFFICACY OF GROWTH HORMONE 09/20/1999 - 11/08/2002      FY00: \$204,867                      Total: \$204,867 Prin. Invest.: D A MARTINEZ Tech. Officer: JSC/C W LLOYD CASE Category: 59 - LIFE SCIENCE, OTHER
<b>NAG 9 892</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8493</b> DETECTION OF HIGH VOLTAGE SPACECRAFT CHARGING AND DEFECTS IN POWER TRANSMISSION SYSTEMS 07/19/1996 - 03/17/1999      FY00: -\$1                      Total: \$59,499 Prin. Invest.: D E BORING Tech. Officer: JSC/T JEFFCOAT CASE Category: 45 - ELECTRICAL ENGR	<b>NCC 2 5394</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8501</b> THE SCALABILITY OF OPENMP ON LARGE-SCALE DISTRIBUTED SHARED- MEMORY ARCHITECTURES SUCH AS THESGI OR 08/14/2000 - 08/31/2001      FY00: \$25,000                      Total: \$25,000 Prin. Invest.: B CHAPMAN Tech. Officer: ARC/J YAN CASE Category: 22 - COMPUTER SCIENCE
<b>NAG 9 904</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8494</b> CHARACTERIZATION OF EXHAUST PLUME OF VARIABLE IMPULSE PLASMA ROCKET 09/23/1996 - 08/31/2000      FY00: \$0                      Total: \$59,500 Prin. Invest.: D BERING Tech. Officer: JSC/F CHANG-DIAZ CASE Category: 19 - PHYSICAL SCIENCE, OTHER	<b>NCC 2 5396</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8502</b> MINERALS & SUBMICROMETER FORMS AS BIOSIGNATURES 08/28/2000 - 08/31/2001      FY00: \$15,000                      Total: \$15,000 Prin. Invest.: A D HAYMET Tech. Officer: ARC/D F BLAKE CASE Category: 12 - CHEMISTRY
<b>NAG 9 985</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8495</b> INVESTIGATE & DEVELOP ADVANCED TRAINING TECHNIQUES 01/16/1998 - 08/31/2002      FY00: \$104,000                      Total: \$1,216,172 Prin. Invest.: B LOFTIN Tech. Officer: JSC/R SAVELY CASE Category: 22 - COMPUTER SCIENCE	<b>NCC 8 127</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8503</b> FOR RESEARCH "CONTINUATION OF SUPPORT FOR THE COMMERCIAL SPACE CENTER, SPACE VACUUM EPITAXY CTR 01/21/1997 - 10/14/2000      FY00: \$1,000,000                      Total: \$6,500,000 Prin. Invest.: A IGNATIEV, S S PEI Tech. Officer: MSFC/S J LAMBING CASE Category: 47 - METAL & MATERIALS ENGR
<b>NAG 9 1012</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8496</b> TWO PHASE SYSTEMS FOR MARS-G 05/20/1998 - 11/20/2000      FY00: \$21,017                      Total: \$70,411 Prin. Invest.: L C WHITTE Tech. Officer: JSC/J D CORNWELL CASE Category: 46 - MECHANICAL ENGR	<b>NCC 9 57</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8504</b> VIRTUAL REALITY TRAINING CYBERSICKNESS & EFFECTS OF SENSORI- MOTOR FUNCTIONS 02/22/2000 - 09/30/2000      FY00: \$23,206                      Total: \$23,206 Prin. Invest.: R B LOFTIN Tech. Officer: JSC/D HARM CASE Category: 61 - PSYCHOLOGY BIOLOGY
<b>NAG 9 1055</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8497</b> URBAN EXPERIENCE PROGRAM 09/22/1998 - 09/30/2001      FY00: \$34,000                      Total: \$105,000 Prin. Invest.: T MINDIOLA, JR. Tech. Officer: JSC/L ARMENDARIZ CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 9 70</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8505</b> UH NASA TECHNOLOGY COMMERCIALIZATION 03/24/1998 - 03/23/2001      FY00: \$390,000                      Total: \$800,000 Prin. Invest.: A V VAILLAS Tech. Officer: JSC/H L DAVIS CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 9 1103</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8498</b> THE SEARCH FOR MICROBIAL BIOMARKERS IN TERRESTRIAL DEPOSITS 05/04/1999 - 03/09/2004      FY00: \$20,000                      Total: \$40,000 Prin. Invest.: H S CHAFETZ Tech. Officer: JSC/E K GIBSON CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NGT 3 52356</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8506</b> GRADUATE STUDENT RESEARCH PROGRAM GRADUATE STUDENT RESEARCH PROGRAM 07/01/1999 - 08/31/2001      FY00: \$22,000                      Total: \$44,000 Prin. Invest.: V BALAKOTAIAH Tech. Officer: GRC/F J MONTEGANI CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 9 1140</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8499</b> OPTIMAL CHARACTERIZATION OF THE ORBITAL DEBRIS ENVIRONMENT FROM MULTIPLE MEASUREMENTS 08/15/1999 - 08/14/2000      FY00: \$0                      Total: \$32,061 Prin. Invest.: T J HEBERT Tech. Officer: JSC/E G STANSBERRY, JSC/J R THEALL CASE Category: 49 - ENGINEERING, OTHER	<b>NGT 5 50182</b> <b>UNIV HOUSTON-HOUSTON</b> <b>8507</b> PRIMORDIAL PEPTIDE SYNTHESIS IN THE ORIGIN OF LIFE 05/27/1998 - 06/30/2001      FY00: \$22,000                      Total: \$66,000 Prin. Invest.: G E FOX Tech. Officer: HQ/A NURRIDIN CASE Category: 12 - CHEMISTRY

<p><b>NAG 5 8009 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8508</b>            *FUNCTIONAL CORRELATES OF GENETIC EXPRESSION INDUC            08/28/1997 - 11/30/1999 FY00: \$0 Total: \$244,034  <i>Prin. Invest.:</i> A PERACHIO  <i>Tech. Officer:</i> HQ/T SCOTT            CASE Category: 59 - LIFE SCIENCE, OTHER</p>	<p><b>NGT 2 52216 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8516</b>            IPSILATERAL &amp; CONTRALATERAL EFFERENT CONTROL OF VE STIBULAR            PRIMARY AFFERENT RESPONSE DYNAMICS            08/05/1996 - 06/30/1999 FY00: \$0 Total: \$86,000  <i>Prin. Invest.:</i> A A PERACHIO  <i>Tech. Officer:</i> ARC/N G DAUNTON, ARC/M L CORCORAN            CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p><b>NAG 9 859 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8509</b>            SPACE MEDICINE FELLOWSHIP PROPOSAL            06/10/1996 - 06/02/2000 FY00: \$0 Total: \$136,188  <i>Prin. Invest.:</i> W A WASSON  <i>Tech. Officer:</i> JSC/R BILLICA            CASE Category: 56 - MEDICL</p>	<p><b>NGT 9 47 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8517</b>            TRAINING PROGRAM FOR TWO STUDENTS @ GRADUATE SCHOOL OF            BIOMEDICAL SCIENCES            04/12/2000 - 05/31/2001 FY00: \$50,000 Total: \$50,000  <i>Prin. Invest.:</i> C W COOPER  <i>Tech. Officer:</i> JSC/C W LLOYD            CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p><b>NAG 9 1155 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8510</b>            NUTRITIONAL INTERVENTION TO IMPROVE MUSCLE PROTEIN METABO-            LISM DURING STRESS            09/16/1999 - 11/30/2002 FY00: \$178,666 Total: \$178,666  <i>Prin. Invest.:</i> A A FERRANDO  <i>Tech. Officer:</i> JSC/C LLOYD            CASE Category: 56 - MEDICL</p>	<p><b>NAG 2 952 UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 8518</b>            DEVELOPMENT OF BESTIBULAR ORGANS IN MICROGRAVITY            12/16/1994 - 11/30/2000 FY00: \$0 Total: \$757,735  <i>Prin. Invest.:</i> M L WIEDERHOLD  <i>Tech. Officer:</i> ARC/W E HINDS, ARC/C M WINGET            CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p><b>NAG 9 97147 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8511</b>            PROTEIN TURNOVER DURING SPACE FLIGHT            02/24/1997 - 08/31/2002 FY00: \$128,000 Total: \$458,000  <i>Prin. Invest.:</i> A FERRANDO  <i>Tech. Officer:</i> JSC/A LEE            CASE Category: 56 - MEDICL</p>	<p><b>NAG 9 1206 UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 8519</b>            USE OF NASA BIOREACTOR TO STUDY CELL CYCLE REGULATION            03/01/2000 - 02/28/2002 FY00: \$187,785 Total: \$187,785  <i>Prin. Invest.:</i> J M JESSUP  <i>Tech. Officer:</i> JSC/S GONDA            CASE Category: 56 - MEDICL</p>
<p><b>NAG 9 98138 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8512</b>            SMALL PAYLOAD EXPERIMENT            10/28/1998 - 10/27/2001 FY00: \$100,000 Total: \$195,000  <i>Prin. Invest.:</i> M MCGINNIS  <i>Tech. Officer:</i> JSC/C HAVEN            CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>	<p><b>NAG10 180 UNIV OF TEXAS-HLTH SCI CTR-SAN ANTONIO 8520</b>            FUNCTIONAL DEVELOPMENT IN A MODEL VESTIBULAS SYS            01/18/1996 - 04/30/2001 FY00: \$125,000 Total: \$710,175  <i>Prin. Invest.:</i> M L WIEDERHOLD  <i>Tech. Officer:</i> KSC/W M KNOTT            CASE Category: 59 - LIFE SCIENCE, OTHER</p>
<p><b>NCC 2 1160 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8513</b>            STREPTOCOCCUS PNEUMONIAE GENE EXPRESSION AND VIRUL ENCE            POTENTIAL IN THE SPACE ENVIRONMENT            02/11/2000 - 02/28/2001 FY00: \$150,616 Total: \$150,616  <i>Prin. Invest.:</i> D NIESSEL  <i>Tech. Officer:</i> ARC/C M WINGET, ARC/D REISS-BUBENHEIM            CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>	<p><b>NAG 8 1634 UNIV OF TEXAS-PAN AMERICAN 8521</b>            OPTIMAL DESIGN OF HYBRID PASSIVE VISCOELASTIC AND ACTIVE            PIEZOELECTRIC DAMPING LAYERS            09/30/1999 - 08/31/2000 FY00: \$0 Total: \$98,213  <i>Prin. Invest.:</i> A LUMSDAINE  <i>Tech. Officer:</i> MSFC/A BEAM, MSFC/W LOVE            CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>
<p><b>NCC 8 170 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8514</b>            R/S DIFFERENTIATION OF 3 DIMENSIONAL CO-CULTURES OF MYOFIBRO-            BLASTS, PRENEOPLASTIC            03/23/1999 - 11/30/2002 FY00: \$139,000 Total: \$264,000  <i>Prin. Invest.:</i> V CHOPPA  <i>Tech. Officer:</i> MSFC/V CHOPPA            CASE Category: 56 - MEDICL</p>	<p><b>NAG 9 857 UNIV OF TEXAS-PAN AMERICAN 8522</b>            DEVELOPMENT OF MINORITY INSTITUTION RESEARCH            12/11/1995 - 12/31/1999 FY00: -\$1,206 Total: \$496,434  <i>Prin. Invest.:</i> E LEMASTER, R H FOWLER  <i>Tech. Officer:</i> JSC/L M ARMEDARIZ            CASE Category: 32 - GEOLOGICAL SCIENCE</p>
<p><b>NCC 9 81 UNIV OF TEXAS MEDICAL BRANCH - GALVESTON 8515</b>            UTMB/NASA-JSC GRADUATE MED TRAINING IN AEROSPACE MEDICINE            12/07/1998 - 09/30/2003 FY00: \$99,881 Total: \$331,880  <i>Prin. Invest.:</i> J R DAVIS  <i>Tech. Officer:</i> JSC/R BILLICA            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 9 1169 UNIV OF TEXAS-PAN AMERICAN 8523</b>            PAARTNERSHIP FOR SCIENCE AND ENGR STUDENT SUCCESS            09/27/1999 - 09/29/2001 FY00: \$39,500 Total: \$136,964  <i>Prin. Invest.:</i> R FOWLER, J LANAGABEER  <i>Tech. Officer:</i> JSC/S GONZALEZ, JSC/L ARMENDARIZ            CASE Category: 54 - ENVIRONMENTAL BIOLOGY</p>

**NAG 2 962 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8524**  
 SPACE FLIGHT, STRESS & PLASTICITY  
 02/07/1995 - 12/31/2000 FY00: \$135,000 Total: \$573,376  
 Prin. Invest.: S T BRADY  
 Tech. Officer: ARC/D REISS-BUBENHEIM, ARC/W E HINDS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4846 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8525**  
 THE ROLE OF CARDIAC MECHANICS IN BLOOD PRESSURE RE TATIC STRESS  
 06/27/1997 - 09/30/2000 FY00: \$201,000 Total: \$525,000  
 Prin. Invest.: B LEVINE  
 Tech. Officer: GSFC/V SCHNEIDER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 6317 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8526**  
 MECHANISM OF PHYSIOLOGICAL ADAPTATION TO MICROGRAVITY  
 10/23/1997 - 09/30/1999 FY00: \$0 Total: \$1,130,000  
 Prin. Invest.: G BLOMQVIST  
 Tech. Officer: GSFC/L P CHAMBERS  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1033 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8527**  
 MICROCIRCULATORY ADJUSTMENT TO SIMULATED MICROGRAVITY EXPOSURE IN HUMANS  
 07/16/1998 - 07/15/2001 FY00: \$158,000 Total: \$367,978  
 Prin. Invest.: C G CRANDALL  
 Tech. Officer: JSC/C W LLOYD  
 CASE Category: 56 - MEDICL

**NAS 9 19429 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8528**  
 INTEGRATION OF NEURAL CARDIOVASCULAR CONTROL IN SPACE  
 10/31/1995 - 09/30/2000 FY00: \$122,472 Total: \$889,471  
 Prin. Invest.: C G BLOMQVIST  
 Tech. Officer: JSC/A M LEE  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAS 9 19540 UNIV OF TEXAS, HEALTH SCI CTR-DALLAS 8529**  
 ADAPTIVE CHANGES IN CARDIOVASCULAR CONTROL AT MICROGRAVITY  
 02/13/1996 - 07/31/2000 FY00: \$0 Total: \$965,190  
 Prin. Invest.: C G BLOMQVIST, NONE  
 Tech. Officer: JSC/C M SMITH  
 CASE Category: 56 - MEDICL

**NAG 8 1347 UNIV. OF TEXAS MD ANDERSON CANCER CENTER 8530**  
 USE OF NASA BIOREACTORS IN A NOVEL SCHEME FOR IMMUNIZATION AGAINST CANCER  
 06/18/1997 - 12/31/2000 FY00: \$137,106 Total: \$457,338  
 Prin. Invest.: C A SAVARY  
 Tech. Officer: JSC/S R GONDAS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1348 UNIV. OF TEXAS MD ANDERSON CANCER CENTER 8531**  
 APPLICATION OF BIOREACTOR TECHNOLOGY ANALYSIS AND COUNTER MEASURE DEVELOPMENT OF MICROGRAVITY  
 06/18/1997 - 11/30/2001 FY00: \$116,270 Total: \$369,467  
 Prin. Invest.: E H GRIMM  
 Tech. Officer: JSC/S R GONDAS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1570 UNIV. OF TEXAS MD ANDERSON CANCER CENTER 8532**  
 APPLICATION OF BIOREACTOR TECHNOLOGY FOR A PRECLINICAL HUMAN MODEL OF MELANOMA  
 03/19/1999 - 11/02/2003 FY00: \$130,000 Total: \$236,000  
 Prin. Invest.: E A GRIMM  
 Tech. Officer: MSFC/B V GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1261 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8533**  
 RELATIONSHIP OF MORPHOGENESIS & MINERALIZATION TO GRAVITY IN SPACEFLOWN ALGAE  
 09/01/1998 - 12/31/2000 FY00: \$38,279 Total: \$158,308  
 Prin. Invest.: P J DUKE  
 Tech. Officer: ARC/C M WINGET, ARC/P D SAVAGE  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 4710 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8534**  
 GRAVITY AND THE REGULATION OF A CENTRAL GROWTH FAC  
 06/11/1997 - 01/31/2001 FY00: \$140,264 Total: \$409,271  
 Prin. Invest.: E DURBAN  
 Tech. Officer: GSFC/M AVERNER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 6176 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8535**  
 3RD YEAR RENEWAL OF GRANT # NAGW 4479 FOR PHYSIOLO DECOMPRESSION-INDUCED VENOUS BUBBLES  
 07/28/1997 - 03/31/1999 FY00: -\$1,868 Total: \$98,991  
 Prin. Invest.: B BUTLER  
 Tech. Officer: GSFC/V SCHNEIDER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 8 1585 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8536**  
 IMPACT/MICROGRAVITY ON IMMUNOGENICITY ASSOCIATED WITH BISTRUCTURAL CHANGES/PANCRATIC ISLETS  
 03/19/1999 - 12/31/2002 FY00: \$121,433 Total: \$212,433  
 Prin. Invest.: L P RUTZKY  
 Tech. Officer: MSFC/B V GUYNES  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 813 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8537**  
 EFFECT OF MICROGRAVITY ON HUMAN SKIN EQUIVALENT  
 08/11/1995 - 12/19/2000 FY00: \$0 Total: \$239,000  
 Prin. Invest.: D DIMITRIJEVICH  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 834 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8538**  
 USE OF ROTATING WALL VESSEL TO FACILITATE CULTURE OF NORWALK VIRUS  
 08/22/1995 - 08/31/2000 FY00: \$0 Total: \$700,000  
 Prin. Invest.: P JOHNSON  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 865 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8539**  
 IN VIO GAS PHASE FORMATION/GROWTH  
 04/11/1996 - 11/30/1999 FY00: -\$3 Total: \$59,997  
 Prin. Invest.: B BUTLER  
 Tech. Officer: JSC/D POWELL  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 9 886 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8540**  
 TISSUE GAS MICRONUCLEI FUNCTION & THEIR LIFETIMES  
 05/01/1996 - 10/19/1999 FY00: -\$12,268 Total: \$37,020  
*Prin. Invest.:* D FIFE  
*Tech. Officer:* JSC/D POWELL  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 9 952 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8541**  
 EXERCISE DURING PREBREATHE: REDUCTION OF THE H-2-O  
 PREBREATHE TIME  
 08/14/1997 - 02/14/2001 FY00: \$0 Total: \$54,000  
*Prin. Invest.:* C FIFE  
*Tech. Officer:* JSC/M R POWELL  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1040 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8542**  
 EFFECTS OF CIRCADIAN RHYTHMS ON DEPRESSION OUTCOME  
 06/22/1998 - 06/30/2001 FY00: \$100,000 Total: \$229,000  
*Prin. Invest.:* B BUTLER  
*Tech. Officer:* JSC/C SAWIN  
*CASE Category:* 56 - MEDICL

**NAG 9 1142 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8543**  
 AN IN VITRO OSTEOSPEROID MODEL TO STUDY MICROGRAVITY EFFECTS  
 ON BONE FUNCTION  
 08/27/1999 - 10/14/1999 FY00: -\$2,297 Total: \$2,703  
*Prin. Invest.:* T DEIS  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1144 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8544**  
 DUST STIMULANTS ON LUNG INFLAMMATION AND ALVEOLAR MACRO-  
 PHAGE FUNCTION  
 09/20/1999 - 09/19/2002 FY00: \$0 Total: \$10,000  
*Prin. Invest.:* A HOLIAN  
*Tech. Officer:* JSC/J T JAMES  
*CASE Category:* 56 - MEDICL

**NAG 9 1247 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8545**  
 DEVELOP REINFORCEMENT LEARNING TECHNIQUES FOR EFFIC IENT  
 TRAINING ROBOTIC SYSTEMS  
 07/18/2000 - 07/19/2001 FY00: \$60,000 Total: \$60,000  
*Prin. Invest.:* H WANG, J ZHANG, T R JOHNSON  
*Tech. Officer:* JSC/R T SAVELY  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 9 168 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8546**  
 NUTRITION IMMUNOMODULATION IN MICROGRAVITY  
 03/05/1999 - 11/30/2002 FY00: \$148,000 Total: \$282,000  
*Prin. Invest.:* A D KULKARNI  
*Tech. Officer:* JSC/S GONDAS  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 9 82 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8547**  
 EVA PREBREATHE REDUCTION PROTOCOL  
 03/11/1999 - 03/10/2003 FY00: \$125,000 Total: \$275,000  
*Prin. Invest.:* B BUTLER  
*Tech. Officer:* JSC/M GERNHARDT  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 9 90 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8548**  
 GAS PHASE FORMATION, GROWTH AND EFFECTS OF SURFACE TENSION  
 02/11/2000 - 02/20/2002 FY00: \$55,182 Total: \$55,182  
*Prin. Invest.:* B D BUTLER  
*Tech. Officer:* JSC/M R POWELL  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 9 103 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8549**  
 CHARACTERIZATION OF AUTONOMIC FUNCTION  
 02/21/2000 - 02/20/2003 FY00: \$7,417 Total: \$7,417  
*Prin. Invest.:* R F LODATO  
*Tech. Officer:* JSC/J M YELLE  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NGT 5 50084 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8550**  
 IMMONOTOXICITY OF HYDRAZINE/GRADUATE STUDENT RESEA \_JUDITH A.  
 LATCH  
 09/17/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* A HOLIAN  
*Tech. Officer:* GSFC/L P CHAMBERS  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 9 25 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8551**  
 ANTIGEN SPECIFIC IMMUNE DISFUNCTION ASSOCIATED W/ CHRONIC  
 STRESS  
 06/25/1997 - 08/31/2000 FY00: \$0 Total: \$63,333  
*Prin. Invest.:* G MARSHALL, JR., S K AGARWAL  
*Tech. Officer:* JSC/C F SAMS  
*CASE Category:* 56 - MEDICL

**NGT 9 46 UNIV. OF TEXAS-HLTH SCIENCE CTR-HOUSTON 8552**  
 TRAINING PROGRAM FOR TWO STUDENTS AT THE GRADUATE SCHOOL OF  
 BIOMEDICAL SCIENCES  
 04/07/2000 - 05/31/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* J WEINDER  
*Tech. Officer:* JSC/C W LLOYD  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 9 1063 UNIVERSITY OF HOUSTON - CLEAR LAKE 8553**  
 COX REGRESSION MODELING AND ANALYSIS OF NASA/JSC EXPERI-  
 MENTAL DATA ON DECOMPRESSION SICKNESS  
 02/20/1999 - 09/30/2001 FY00: \$0 Total: \$30,000  
*Prin. Invest.:* R S CHHIKARA  
*Tech. Officer:* JSC/M POWELL  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NCC 9 30 UNIVERSITY OF HOUSTON - CLEAR LAKE 8554**  
 RESEARCH FOR COMPUTING & INFORMATION SYSTEMS  
 08/08/1994 - 05/31/2001 FY00: \$7,914,920 Total: \$23,511,450  
*Prin. Invest.:* E T DICKERSON  
*Tech. Officer:* JSC/R T SAVELY  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 9 76 UNIVERSITY OF HOUSTON - CLEAR LAKE 8555**  
 STATISTICAL PROCESS CONTROL OF SHUTTLE MAINT OPS  
 09/24/1998 - 09/23/2000 FY00: \$0 Total: \$32,685  
*Prin. Invest.:* R S CHHIKARA  
*Tech. Officer:* JSC/JARRELL  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER



## NASA'S UNIVERSITY PROGRAM

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<b>NGT 9 38 UNIVERSITY OF HOUSTON - CLEAR LAKE 8556</b> GEOGRAPHY INST FOR TEACHERS 03/24/1999 - 10/01/1999 FY00: \$0 Total: \$21,978 <i>Prin. Invest.:</i> J N MAIER <i>Tech. Officer:</i> JSC/B A DEASON, JSC/N G ROBERTSON <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER	<b>NAG 5 4668 U OF NORTH TEXAS HLTH SCLCTR AT FT.WORTH 8564</b> CARTOID BAROREFLEX FUNCTION DURING PROLONGED EXERC 06/17/1997 - 05/31/2001 FY00: \$0 Total: \$301,896 <i>Prin. Invest.:</i> P B RAVEN <i>Tech. Officer:</i> GSFC/V SCHNEIDER <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER
<b>NGT 9 48 UNIVERSITY OF HOUSTON - CLEAR LAKE 8557</b> NASA IMAGE INSTITUTE FOR GEOGRAPHY & EARTH SCIENCE TEACHERS 06/01/2000 - 12/31/2000 FY00: \$21,900 Total: \$21,900 <i>Prin. Invest.:</i> J N MACIR, NONE <i>Tech. Officer:</i> JSC/N G ROBERTSON <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER	<b>NGT 5 50179 U OF NORTH TEXAS HLTH SCLCTR AT FT.WORTH 8565</b> SLEEP RESTRICTION AND MECHANISMS OF ORTHOSTATIC TOLERANCE 10/31/1997 - 08/31/2000 FY00: \$0 Total: \$66,000 <i>Prin. Invest.:</i> M SMITH <i>Tech. Officer:</i> HQ/A NURRIDIN <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER
<b>NAG 9 1018 UNIVERSITY OF HOUSTON - DOWNTOWN 8558</b> PRECOLLEGE AWARD FOR EXCELLENCE PACE/MSET 05/01/1998 - 04/30/2001 FY00: \$99,953 Total: \$299,400 <i>Prin. Invest.:</i> R ALO <i>Tech. Officer:</i> JSC/L ARMENDARIZ <i>CASE Category:</i> 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 2 5395 UNIVERSITY OF TEXAS - ARLINGTON 8566</b> SCHEDULING & LOAD BALANCING ON THE INFORMATION POWER GRID 08/15/2000 - 12/31/2000 FY00: \$25,000 Total: \$25,000 <i>Prin. Invest.:</i> S K DAS <i>Tech. Officer:</i> ARC/J YAN, ARC/D KWAK <i>CASE Category:</i> 22 - COMPUTER SCIENCE
<b>NAG 9 1113 UNIVERSITY OF HOUSTON - DOWNTOWN 8559</b> ANCIENT LIFE IN ROCKS ON EARTH 05/14/1999 - 05/13/2001 FY00: \$10,000 Total: \$20,000 <i>Prin. Invest.:</i> P A MORRIS-SMITH <i>Tech. Officer:</i> JSC/E K GIBSON <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE	<b>NAG 1 2187 UNIVERSITY OF TEXAS - AUSTIN 8567</b> A COMPUTATIONAL PROCEDURE FOR THREE DIMENSIONAL STRESS ANALYSIS FRACTURES 05/19/1999 - 05/31/2000 FY00: \$0 Total: \$64,193 <i>Prin. Invest.:</i> M E MEAR <i>Tech. Officer:</i> LARC/J C NEWMAN, JR., LARC/I S RAJU <i>CASE Category:</i> 46 - MECHANICAL ENGR
<b>NAG 9 1114 UNIVERSITY OF HOUSTON - DOWNTOWN 8560</b> ANCIENT LIFE IN ROCKS ON EARTH 05/14/1999 - 05/13/2001 FY00: \$10,000 Total: \$20,000 <i>Prin. Invest.:</i> P A MORRIS-SMITH <i>Tech. Officer:</i> JSC/E K GIBSON <i>CASE Category:</i> 32 - GEOLOGICAL SCIENCE	<b>NAG 2 1347 UNIVERSITY OF TEXAS - AUSTIN 8568</b> CELLULAR BASES OF LIGHT REGULATED GRAVITY RESPONSE S 07/23/1999 - 12/31/2000 FY00: \$125,003 Total: \$189,221 <i>Prin. Invest.:</i> S J ROUX <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)
<b>NAG 5 2905 UNIVERSITY OF NORTH TEXAS 8561</b> EMERGENCY AND CRISIS MANAGEMENT: A REMOTE SENSING APPLICATION 03/10/1995 - 03/14/1999 FY00: \$0 Total: \$263,000 <i>Prin. Invest.:</i> D NEAL <i>Tech. Officer:</i> GSFC/F FLASER <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 2 1349 UNIVERSITY OF TEXAS - AUSTIN 8569</b> EVOLUTIONARY ORIGIN OF BODY AXIS SEGMENTATION IN ANNELIDS & ARTHROPODS 07/20/1999 - 12/14/2000 FY00: \$154,886 Total: \$218,199 <i>Prin. Invest.:</i> S M SHANKLAND <i>Tech. Officer:</i> ARC/M M AVERNER, ARC/R D MACELROY <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)
<b>NAG 5 4891 UNIVERSITY OF NORTH TEXAS 8562</b> THE PRODUCTION, CONCENTRATION, AND ARRANGEMENT OF INORGANIC HOSTS 06/19/1997 - 08/31/2000 FY00: \$70,000 Total: \$210,000 <i>Prin. Invest.:</i> D S BRATERMAN <i>Tech. Officer:</i> GSFC/M MEYER <i>CASE Category:</i> 51 - BIOLOGY (EXCLUDING ENVIR)	<b>NAG 3 1839 UNIVERSITY OF TEXAS - AUSTIN 8570</b> INSTABILITIES IN SURFACE-TENSION DRIVEN CONVECTION 05/06/1996 - 05/05/2001 FY00: \$120,000 Total: \$500,000 <i>Prin. Invest.:</i> H L SWINNEY <i>Tech. Officer:</i> GRC/A T CHAI <i>CASE Category:</i> 19 - PHYSICAL SCIENCE, OTHER
<b>NAG 5 3744 U OF NORTH TEXAS HLTH SCLCTR AT FT.WORTH 8563</b> MICROGRAVITY: SLEEP DEPRIVATION AND AUTONOMIC CONTROL 03/11/1997 - 03/14/2001 FY00: \$0 Total: \$263,844 <i>Prin. Invest.:</i> M SMITH, NONE <i>Tech. Officer:</i> GSFC/V SCHNEIDER <i>CASE Category:</i> 59 - LIFE SCIENCE, OTHER	<b>NAG 3 1901 UNIVERSITY OF TEXAS - AUSTIN 8571</b> PRECISION MEASUREMENTS WITH TRAPPED LASER-COOLED ATOMS IN A MICROGRAVITY ENVIRONMENT 06/14/1996 - 01/01/2001 FY00: \$100,000 Total: \$415,000 <i>Prin. Invest.:</i> D J HEINZEN <i>Tech. Officer:</i> GRC/B S SINGH <i>CASE Category:</i> 13 - PHYSICS

**NAG 3 2240 UNIVERSITY OF TEXAS - AUSTIN 8572**  
 LASER VELOCIMETER FOR STUDIES OF MICROGRAVITY COMBUSTION FLOWFIELDS  
 02/26/1999 - 01/13/2002 FY00: \$90,500 Total: \$158,000  
 Prin. Invest.: P L VARGHESE  
 Tech. Officer: GRC/P S GREENBERG  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2265 UNIVERSITY OF TEXAS - AUSTIN 8573**  
 COMPOSITE FLYWHEEL PRELOAD MONITOR COMPOSITE FLYWHEEL PRELOAD MONITOR  
 05/12/1999 - 03/31/2000 FY00: \$0 Total: \$50,153  
 Prin. Invest.: J L BENO  
 Tech. Officer: GRC/D CHRISTOPHER  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 1603 UNIVERSITY OF TEXAS - AUSTIN 8574**  
 HST - GTO  
 05/20/1991 - 09/30/2000 FY00: \$133,818 Total: \$8,767,603  
 Prin. Invest.: W H JEFFERYS  
 Tech. Officer: GSFC/J JELETIC  
 CASE Category: 11 - ASTRONOMY

**NAG 5 1616 UNIVERSITY OF TEXAS - AUSTIN 8575**  
 STELLAR SPECTROSCOPY AND THE HUBBLE SPACE TELESCOPE  
 05/24/1991 - 10/31/2000 FY00: \$0 Total: \$484,054  
 Prin. Invest.: D L LAMBERT  
 Tech. Officer: GSFC/E RUITBERG  
 CASE Category: 11 - ASTRONOMY

**NAG 5 1855 UNIVERSITY OF TEXAS - AUSTIN 8576**  
 HUBBLE SPACE TELESCOPE (HST) GUARANTEED TIME OBSERVATION  
 01/02/1992 - 11/14/1999 FY00: \$0 Total: \$522,000  
 Prin. Invest.: L M TRAFTON  
 Tech. Officer: GSFC/A SMITH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 1939 UNIVERSITY OF TEXAS - AUSTIN 8577**  
 STUDY OF CRUSTAL DEFORMATION IN THE INDIAN-EURASIAN COLLISION ZONE  
 03/12/1992 - 04/14/1999 FY00: \$0 Total: \$368,000  
 Prin. Invest.: B TAPLEY  
 Tech. Officer: GSFC/B G BILLS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 2954 UNIVERSITY OF TEXAS - AUSTIN 8578**  
 DETECTING SMALL-SCALE TOPOGRAPHIC CHANGES AND RELICT GEOMORPHIC FEATURES ON BARRIER ISLANDS ETC  
 06/01/1995 - 08/31/1999 FY00: \$0 Total: \$297,759  
 Prin. Invest.: J C GIBEAUT  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 3107 UNIVERSITY OF TEXAS - AUSTIN 8579**  
 THEORETICAL MODELS FOR THE STELLAR MASS FUNCTION  
 10/19/1995 - 10/31/1999 FY00: \$0 Total: \$117,000  
 Prin. Invest.: J M SCALO  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3348 UNIVERSITY OF TEXAS - AUSTIN 8580**  
 ANALYSIS OF ISO DATA  
 08/12/1996 - 08/14/2000 FY00: \$0 Total: \$264,800  
 Prin. Invest.: D L LAMBERT  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3431 UNIVERSITY OF TEXAS - AUSTIN 8581**  
 PARASEC-SCALE ENVIRONMENT OF LIMINOUS AGN: SPECTROSCOPIC CLUES TO WINDS, JETS, AND ACCRETION  
 10/01/1996 - 09/30/2001 FY00: \$153,000 Total: \$712,606  
 Prin. Invest.: B J WILLS  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3649 UNIVERSITY OF TEXAS - AUSTIN 8582**  
 OBTAINING RELATIVITY AND OTHER RELEVANT PARAMETERS RANGING DATA  
 03/06/1997 - 02/28/2001 FY00: \$0 Total: \$118,376  
 Prin. Invest.: D J SHELLUS  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3786 UNIVERSITY OF TEXAS - AUSTIN 8583**  
 MCDONALD OBSERVATORY SUPPORT: HARLAN SMITH POST-DOCTORAL SCIENCE  
 03/19/1997 - 12/31/2001 FY00: \$61,100 Total: \$219,029  
 Prin. Invest.: D N BASH  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3887 UNIVERSITY OF TEXAS - AUSTIN 8584**  
 CELLULAR BASES OF LIGHT-REGULATED GRAVITY RESPONSE  
 03/12/1997 - 08/31/1999 FY00: \$0 Total: \$177,654  
 Prin. Invest.: S J ROUX  
 Tech. Officer: GSFC/T SCOTT  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 3930 UNIVERSITY OF TEXAS - AUSTIN 8585**  
 COMBUSTION IN ASTROPHYSICS  
 03/12/1997 - 03/14/2000 FY00: \$0 Total: \$47,580  
 Prin. Invest.: C J WHEELER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4125 UNIVERSITY OF TEXAS - AUSTIN 8586**  
 INVESTIGATING RELATIVITY PARAMETERS WITH LUNAR LASER OBSERVATIONS  
 03/13/1997 - 12/31/1999 FY00: \$0 Total: \$76,700  
 Prin. Invest.: D J SHELUS  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4208 UNIVERSITY OF TEXAS - AUSTIN 8587**  
 INVESTIGATIONS OF COMETS: HALE-BOPP, THE KUIPER BEL OF OPPORTUNITY  
 03/14/1997 - 09/14/2000 FY00: \$0 Total: \$261,131  
 Prin. Invest.: D L COCHRAN  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 11 - ASTRONOMY

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**NAG 5 4209 UNIVERSITY OF TEXAS - AUSTIN 8588**  
 MICROMACHINED DIFFRACTION GRATINGS FOR COMPACT IR  
 03/14/1997 - 03/14/2000 FY00: \$20,000 Total: \$217,746  
 Prin. Invest.: D JAFFE  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4384 UNIVERSITY OF TEXAS - AUSTIN 8589**  
 RADIAL VELOCITY DETECTION OF EXTRA-SOLAR PLANETARY  
 04/24/1997 - 02/28/2001 FY00: \$0 Total: \$510,003  
 Prin. Invest.: D D COCHRAN  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4934 UNIVERSITY OF TEXAS - AUSTIN 8590**  
 GROUND BASED STUDIES OF THE OUTER PLANETS  
 06/23/1997 - 07/31/1999 FY00: \$0 Total: \$45,000  
 Prin. Invest.: D TRAFTON  
 Tech. Officer: GSFC/J BERGSTALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 5170 UNIVERSITY OF TEXAS - AUSTIN 8591**  
 DETERMINATION OF TIME-VARYING EARTH GRAVITY FIELD F Y  
 07/17/1997 - 12/31/2000 FY00: \$37,000 Total: \$170,000  
 Prin. Invest.: M CHENG  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 5171 UNIVERSITY OF TEXAS - AUSTIN 8592**  
 MEASUREMENT AND INTERPRETATION OF TEMPORAL VARIATION FIELD  
 USING GPS AND SLR  
 07/17/1997 - 07/14/2001 FY00: \$31,000 Total: \$162,000  
 Prin. Invest.: R R EM  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6140 UNIVERSITY OF TEXAS - AUSTIN 8593**  
 HIGH DISPERSION SPECTROSCOPY OF MARS, PLUTO AND CO  
 09/08/1997 - 08/31/1999 FY00: \$0 Total: \$260,000  
 Prin. Invest.: D S BARKER  
 Tech. Officer: GSFC/J BERGSTALH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6300 UNIVERSITY OF TEXAS - AUSTIN 8594**  
 UNIVERSITY OF TEXAS, ENHANCEMENT USING A SPECIAL C  
 09/17/1997 - 06/14/1999 FY00: -\$17,009 Total: \$2,902  
 Prin. Invest.: W T FOWLER  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6309 UNIVERSITY OF TEXAS - AUSTIN 8595**  
 EARTH SYSTEM DYNAMICS: THE DETERMINATION & INTERPRETATION OF  
 THE GLOBAL ANGULAR MOMENTUM BUDGET USING  
 10/10/1997 - 12/30/2000 FY00: \$665,000 Total: \$3,759,000  
 Prin. Invest.: B TAPLEY  
 Tech. Officer: GSFC/J LABRECQUE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6346 UNIVERSITY OF TEXAS - AUSTIN 8596**  
 PRECISION ORBIT DETERMINATION AND CALIBRATION SUPPORT FOR U.S.  
 WORLD OCEAN CIRCULATION EXPERIMENT  
 10/17/1997 - 12/31/1999 FY00: \$0 Total: \$234,472  
 Prin. Invest.: B TAPLEY  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6368 UNIVERSITY OF TEXAS - AUSTIN 8597**  
 ASTROMETRY AND DYNAMICS OF NEAR-EARTH OBJECTS AND KIRKWOOD  
 GAPS  
 09/25/1997 - 09/30/2000 FY00: \$53,088 Total: \$196,812  
 Prin. Invest.: D S BARKER  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6395 UNIVERSITY OF TEXAS - AUSTIN 8598**  
 MULTISCALE SOIL MOISTURE VARIABILITY FROM COMBINED REMOTE  
 SENSING, MODELING, AND OBSERVATIONS  
 10/21/1997 - 06/30/2000 FY00: \$0 Total: \$174,070  
 Prin. Invest.: J FAMIGLIETTI  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6728 UNIVERSITY OF TEXAS - AUSTIN 8599**  
 GENERAL RELATIVISTIC AND GRAVITATIONAL PHYSICS PARAMETERS  
 FROM LUNAR LASER RANGING DATA  
 12/11/1997 - 12/31/2000 FY00: \$96,000 Total: \$198,000  
 Prin. Invest.: P J SHELUS  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6754 UNIVERSITY OF TEXAS - AUSTIN 8600**  
 GROUND BASED STUDIES OF THE OUTER PLANETS  
 12/15/1997 - 12/31/2000 FY00: \$77,958 Total: \$243,476  
 Prin. Invest.: L M TRAFTON  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7002 UNIVERSITY OF TEXAS - AUSTIN 8601**  
 TIME SERIES ANALYSIS OF THE UV FLICKERING IN AGN  
 02/09/1998 - 02/14/2001 FY00: \$0 Total: \$100,000  
 Prin. Invest.: E ROBINSON  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7203 UNIVERSITY OF TEXAS - AUSTIN 8602**  
 TRACING THE MASS IN AN EVOLUTIONARY SEQUENCE  
 04/23/1998 - 04/14/2001 FY00: \$50,000 Total: \$165,643  
 Prin. Invest.: N J EVANS, 11  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7363 UNIVERSITY OF TEXAS - AUSTIN 8603**  
 THE EVOLUTION OF THE INTERGALACTIC MEDIUM AND THE FORMATION  
 OF GALAXIES AND LARGE-SCALE STRUCTURE IN  
 04/30/1998 - 05/31/2000 FY00: \$0 Total: \$50,000  
 Prin. Invest.: P R SHAPIRO  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

<b>NAG 5 7582</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8604</b>	<b>MAPPING NEAR-SURFACE SALINIZATION USING LONG-WAVE LENGTH-AIRSAR</b> (SENH98-0113) 08/04/1998 - 01/31/2001 FY00: \$42,000 Total: \$105,000 Prin. Invest.: J G PAINE Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 7660</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8605</b>	<b>'PATTERNS OF SHORELINE CHANGE AND HURRICANE WASHOV ER ON BARRIERISLANDS'</b> (SENH98-0094) 09/09/1998 - 02/28/2001 FY00: \$200,000 Total: \$500,000 Prin. Invest.: J C GIBEAU Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 7693</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8606</b>	<b>FUNDING FOR 'REMOTE SENSING, GIS AND THE ANCIENT TERRITORY: A PROJECT FOR THE CHORA OF CHERONESOS</b> 09/17/1998 - 03/31/2001 FY00: \$100,000 Total: \$250,023 Prin. Invest.: J C CARTER Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 7791</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8607</b>	<b>SPATIALLY-RESOLVED, GROUND-BASED OBSERVATIONS OF MARTIAN ATMOSPHERIC WATER VAPOR: 1999-2002 APP</b> 12/14/1998 - 08/30/2000 FY00: \$0 Total: \$69,700 Prin. Invest.: D S BARKER Tech. Officer: GSFC/T MORGAN CASE Category: 11 - ASTRONOMY
<b>NAG 5 7821</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8608</b>	<b>THE EVOLUTION OF THE INTERGALACTIC MEDIUM AND THE FORMATION OF GALAXIES AND LARGE-SCALE STRUCTURE IN</b> 02/19/1999 - 02/28/2001 FY00: \$0 Total: \$78,000 Prin. Invest.: P R SHAPIRO Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY
<b>NAG 5 7910</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8609</b>	<b>CHARACTERIZING THE SIPLE COAST ICE STREAM SYSTEM USING SATELLITE IMAGES, IMPROVED TOPOGRAPHY, AND IN</b> 12/07/1998 - 12/31/2000 FY00: \$26,574 Total: \$52,620 Prin. Invest.: D D BLANKENSHIP Tech. Officer: GSFC/S GOGINENI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 7937</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8610</b>	<b>SUPERNOVAE AND COSMOLOGY</b> 12/21/1998 - 12/31/2000 FY00: \$104,868 Total: \$205,508 Prin. Invest.: P HOEFLICH Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY
<b>NAG 5 8143</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8611</b>	<b>IMPROVED NUMERICAL MODELING OF LOW-DENSITY ATMOSPHERIC FLOW ON IO</b> 02/01/1999 - 12/31/2000 FY00: \$44,274 Total: \$104,912 Prin. Invest.: D GOLDSTEIN Tech. Officer: GSFC/R BEEBE CASE Category: 11 - ASTRONOMY
<b>NAG 5 8290</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8612</b>	<b>OPTIMAL LAND INITIALIZATION FOR SEASONAL CLIMATE PREDICTIONS</b> 02/24/1999 - 02/28/2001 FY00: \$99,181 Total: \$198,362 Prin. Invest.: J S FAMIGLIETTI Tech. Officer: GSFC/M RIENECKER CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 8301</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8613</b>	<b>PHOTOMETRIC DETECTION OF EXTRA-SOLAR PLANETS</b> 02/24/1999 - 02/28/2001 FY00: \$75,000 Total: \$172,300 Prin. Invest.: D P HATZES Tech. Officer: HQ/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 8361</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8614</b>	<b>PHYSICS OF ULTRA-MAGNETIZED NEUTRON STARS (ATP 98)</b> 05/13/1999 - 05/15/2000 FY00: \$0 Total: \$50,000 Prin. Invest.: R C DUNCAN Tech. Officer: GSFC/D K WEST CASE Category: 11 - ASTRONOMY
<b>NAG 5 8611</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8615</b>	<b>SOIL MOISTURE VARIABILITY AND ITS ROLE IN LAND ATMOSPHERE INTERACTION DURING SGP97</b> 06/11/1999 - 06/14/2001 FY00: \$75,419 Total: \$124,590 Prin. Invest.: J S FAMIGLIETTI Tech. Officer: GSFC/E T ENGMAN CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 8704</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8616</b>	<b>USING THE IMPACT OF THE LUNAR PROSPECTOR ORBITER INTO A POLAR COLD TRAP TO DETECT WATER ICE</b> 07/21/1999 - 07/14/2000 FY00: \$0 Total: \$50,000 Prin. Invest.: D B GOLDSTEIN Tech. Officer: GSFC/J BOYCE CASE Category: 11 - ASTRONOMY
<b>NAG 5 8798</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8617</b>	<b>VARIATIONS IN SPACE GEODETIC IN TIME SERIES DUE TO WATER REDISTRIBUTION AND OTHER SOURCES.</b> 11/02/1999 - 11/14/2000 FY00: \$110,000 Total: \$110,000 Prin. Invest.: C R WILSON Tech. Officer: GSFC/H V FREY CASE Category: 32 - GEOLOGICAL SCIENCE
<b>NAG 5 8858</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8618</b>	<b>HIGH INDEX GRISMS FOR MID-INFRARED SPECTROSCOPY.</b> 09/28/1999 - 11/30/2000 FY00: \$0 Total: \$151,196 Prin. Invest.: D T JAFFE Tech. Officer: GSFC/F HERRERO CASE Category: 13 - PHYSICS
<b>NAG 5 9003</b>	<b>UNIVERSITY OF TEXAS - AUSTIN</b>	<b>8619</b>	<b>THE CHEMICAL COMPOSITION OF PRIMITIVE BODIES IN THE SOLAR SYSTEM</b> 01/27/2000 - 01/31/2003 FY00: \$84,700 Total: \$84,700 Prin. Invest.: A L COCHRAN, NONE Tech. Officer: GSFC/T H MORGAN CASE Category: 11 - ASTRONOMY

**NAG 5 9138 UNIVERSITY OF TEXAS - AUSTIN 8620**  
 NASA/EARTH AND SKY BROADCAST FELLOWSHIP  
 02/29/2000 - 03/02/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: D BYRD  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9144 UNIVERSITY OF TEXAS - AUSTIN 8621**  
 RECONSTRUCTION OF HISTORICAL SEA LEVEL VARIATIONS USING TIDE  
 GAUGE DATA AND EMPIRICAL ORTHOGONAL  
 02/29/2000 - 02/28/2001 FY00: \$25,000 Total: \$25,000  
 Prin. Invest.: D P CHAMBERS  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9163 UNIVERSITY OF TEXAS - AUSTIN 8622**  
 IMPROVEMENT IN GEOID MODELS FOR OCEAN CIRCULATION STUDIES  
 03/08/2000 - 03/14/2001 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: B TAPLEY  
 Tech. Officer: GSFC/F HERBERT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 9227 UNIVERSITY OF TEXAS - AUSTIN 8623**  
 RADIAL VELOCITY DETECTION OF EXTRA-SOLAR PLANETARY SYSTEMS  
 03/13/2000 - 03/30/2001 FY00: \$140,000 Total: \$140,000  
 Prin. Invest.: W COCHRAN  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9230 UNIVERSITY OF TEXAS - AUSTIN 8624**  
 IMPROVED SILICON DIFFRACTION GRATINGS FOR NEAR-IR SPECTROSCOPY FROM SPACE  
 03/20/2000 - 03/20/2001 FY00: \$101,736 Total: \$101,736  
 Prin. Invest.: D JAFFE  
 Tech. Officer: GSFC/G STRINGFELLOW  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9239 UNIVERSITY OF TEXAS - AUSTIN 8625**  
 FAR-UV ABSORPTION-LINE SPECTROSCOPY OF THE NEUTRAL  
 ENVELOPES OF PLANETARY NEBULAE - FUSE  
 03/09/2000 - 03/14/2001 FY00: \$73,600 Total: \$73,600  
 Prin. Invest.: G SONNEBORN  
 Tech. Officer: GSFC/H DINERSTEIN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9302 UNIVERSITY OF TEXAS - AUSTIN 8626**  
 REQUEST FOR SUPPLEMENTAL FUNDING FOR COX POSTDOCTORAL  
 FELLOW  
 03/20/2000 - 03/31/2001 FY00: \$22,500 Total: \$22,500  
 Prin. Invest.: C WHEELER  
 Tech. Officer: GSFC/D GOLOMBEK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9321 UNIVERSITY OF TEXAS - AUSTIN 8627**  
 A PARALLEL GENETICS-ALGORITHM-BASED APPROACH TO WHITE DWARF  
 PULSATION MODELS  
 03/22/2000 - 03/31/2003 FY00: \$75,700 Total: \$75,700  
 Prin. Invest.: D E WINGET  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9829 UNIVERSITY OF TEXAS - AUSTIN 8628**  
 SPACECRAFT RENDEZVOUS NAVIGATION WITH INTEGRATED INS-GPS.  
 08/23/2000 - 08/31/2001 FY00: \$80,382 Total: \$80,382  
 Prin. Invest.: R H BISHOP  
 Tech. Officer: GSFC/R CARPENTER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 9989 UNIVERSITY OF TEXAS - AUSTIN 8629**  
 EARTH SYSTEM DYNAMICS: THE DETERMINATION & INTERPRETATION OF  
 THE GLOBAL ANGULAR MOMENTUM BUDGET USI  
 09/21/2000 - 09/30/2001 FY00: \$547,000 Total: \$547,000  
 Prin. Invest.: B D TAPLEY  
 Tech. Officer: GSFC/J LABRECQUE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 745 UNIVERSITY OF TEXAS - AUSTIN 8630**  
 WIDE AREA NETWORK INSTANTIATION DEPLOYMENT & MANAGEMENT OF  
 AUTONOMOUS KNOWLEDGE ROBOTS  
 06/10/1994 - 04/30/1999 FY00: \$0 Total: \$204,989  
 Prin. Invest.: C C STOUT, C D STOUT  
 Tech. Officer: JSC/R SAVELY, JSC/R SHELTON  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 9 829 UNIVERSITY OF TEXAS - AUSTIN 8631**  
 SUBSTRUCTURE SYSTEM IDENTIFICATION & MATH UPDATING  
 09/22/1995 - 06/30/1999 FY00: \$0 Total: \$60,779  
 Prin. Invest.: R R CRAIG, JR.  
 Tech. Officer: JSC/N TENGLER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 841 UNIVERSITY OF TEXAS - AUSTIN 8632**  
 DESIGN OF AUTOMATIC CONTROL FOR HUMAN/LCG THERMAL INTERACTION  
 09/25/1995 - 10/25/1999 FY00: \$0 Total: \$133,607  
 Prin. Invest.: K R DILLER  
 Tech. Officer: JSC/C LIN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 912 UNIVERSITY OF TEXAS - AUSTIN 8633**  
 TSGC PROTOTYPE/SHUTTLE PHOTO ESSAY PROJECT  
 09/24/1996 - 04/24/1999 FY00: -\$31 Total: \$19,969  
 Prin. Invest.: W T FOWLER  
 Tech. Officer: JSC/K D LULLA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 9 946 UNIVERSITY OF TEXAS - AUSTIN 8634**  
 PARTICLE HYDRODYNAMICS W/MATERIAL STRENGTH FOR MULTI LAYER  
 ORBITAL DEBRIS  
 06/12/1997 - 06/22/1999 FY00: \$0 Total: \$67,026  
 Prin. Invest.: E P FAHRENTHOLD  
 Tech. Officer: JSC/E L CHRISTIANSEN  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 9 991 UNIVERSITY OF TEXAS - AUSTIN 8635**  
 COMPUTATIONAL APPROACH TO MODELING RAREFIED FLOW  
 02/20/1998 - 04/30/1999 FY00: -\$914 Total: \$31,852  
 Prin. Invest.: D B GOLDSTEIN, P L VARGHESE  
 Tech. Officer: JSC/F E LUMPKIN, JSC/G J LEBEAU  
 CASE Category: 41 - AERONAUTICAL ENGR

<p><b>NAG 9 994 UNIVERSITY OF TEXAS - AUSTIN 8636</b>  1996 NASA REDUCED GRAVITY STUDENT FLIGHT OPS  02/23/1998 - 01/31/2001 FY00: \$401,970 Total: \$606,263  Prin. Invest.: B D TAPLEY, B O FORT  Tech. Officer: JSC/D G SICKOREZ, JSC/M G ROBERTSON  CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>	<p><b>NAG 9 1189 UNIVERSITY OF TEXAS - AUSTIN 8644</b>  NAVIGATION SYSTEMS AND TECHNOLOGY LAB  01/28/2000 - 12/31/2000 FY00: \$97,857 Total: \$97,857  Prin. Invest.: G LIGHTSEY  Tech. Officer: JSC/J W BELL  CASE Category: 42 - ASTRONAUTICAL ENGR</p>
<p><b>NAG 9 996 UNIVERSITY OF TEXAS - AUSTIN 8637</b>  FLY HIGH-HIGH SCHOOL KC 135 STUDENT FLIGHT PROGRAM  03/02/1998 - 07/31/1999 FY00: -\$1 Total: \$45,437  Prin. Invest.: W T FOWLER, B E FORT  Tech. Officer: JSC/D G SICKOREZ  CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NAG 9 1213 UNIVERSITY OF TEXAS - AUSTIN 8645</b>  ANALYSIS AND MEASUREMENT OF THERMAL INSULATION PROPERTIES OF  EVAC HOLLOW FIBERS  03/01/2000 - 03/10/2001 FY00: \$37,718 Total: \$37,718  Prin. Invest.: H L PAUL, K R DILLER  Tech. Officer: JSC/L A TREVINO  CASE Category: 46 - MECHANICAL ENGR</p>
<p><b>NAG 9 1060 UNIVERSITY OF TEXAS - AUSTIN 8638</b>  NASA STUDENT COMPETITION  12/14/1998 - 08/31/2001 FY00: \$50,000 Total: \$114,029  Prin. Invest.: B D TAPLEY  Tech. Officer: JSC/H C MANDELL  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 9 1225 UNIVERSITY OF TEXAS - AUSTIN 8646</b>  MARS PRECISION LANDING TASK  04/13/2000 - 01/27/2001 FY00: \$102,003 Total: \$102,003  Prin. Invest.: R BISHOP  Tech. Officer: JSC/E M BRADEN  CASE Category: 42 - ASTRONAUTICAL ENGR</p>
<p><b>NAG 9 1075 UNIVERSITY OF TEXAS - AUSTIN 8639</b>  GPS ON ORBIT RECEIVER FOR RELATIVE NAVIGATION  01/19/1999 - 12/27/1999 FY00: \$0 Total: \$58,283  Prin. Invest.: R H BISHOP, G LIGHTSEY, J NOREN  Tech. Officer: JSC/J D WAGENKNECHT, JSC/P LUPO  CASE Category: 42 - ASTRONAUTICAL ENGR</p>	<p><b>NAG 9 1244 UNIVERSITY OF TEXAS - AUSTIN 8647</b>  HYBRID PARTICLE ELEMENT SIMULATION OF IMPACT ON COMPOSITE  ORBITAL DEBRIS SHIELDS  07/11/2000 - 06/30/2002 FY00: \$71,539 Total: \$71,539  Prin. Invest.: E P FAHRENTHOLD  Tech. Officer: JSC/E L CHRISTIANSEN, JSC/J H KERR  CASE Category: 42 - ASTRONAUTICAL ENGR</p>
<p><b>NAG 9 1076 UNIVERSITY OF TEXAS - AUSTIN 8640</b>  NAVIGATION SYSTEM TECHNOLOGY LAB &amp; SUEDEOLITE STUDY  01/15/1999 - 12/22/1999 FY00: \$0 Total: \$56,773  Prin. Invest.: R H BISHOP  Tech. Officer: JSC/J W BELL  CASE Category: 42 - ASTRONAUTICAL ENGR</p>	<p><b>NAGW 4862 UNIVERSITY OF TEXAS - AUSTIN 8648</b>  INVESTIGATING RELATIVITY PARAMETERS WITH LUNAR LASER RANGING  DATA: OBSERVATIONS  11/09/1995 - 12/31/1998 FY00: -\$405 Total: \$36,285  Prin. Invest.: P J SHERUS  Tech. Officer: HQ/L TATT, HQ/D W WEEDMAN  CASE Category: 13 - PHYSICS</p>
<p><b>NAG 9 1117 UNIVERSITY OF TEXAS - AUSTIN 8641</b>  DEVELOP SINGLE COMPUTATIONAL APPROACH TO  05/24/1999 - 05/26/2000 FY00: \$0 Total: \$14,000  Prin. Invest.: D B GOLDSTEIN, P L VARGHESE  Tech. Officer: JSC/F E LUMPKIN  CASE Category: 42 - ASTRONAUTICAL ENGR</p>	<p><b>NAGW 5240 UNIVERSITY OF TEXAS - AUSTIN 8649</b>  MULTISCALE SOIL MOISTURE VARIABILITY FROM COMBINED REMOTE  SENSING MODELING AND OBSERVATIONS  04/22/1998 - 12/31/1998 FY00: -\$2,230 Total: \$164,515  Prin. Invest.: J FAMINGLIETTI  Tech. Officer: HQ/G ASRAR, HQ/R C HARRISS  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 9 1124 UNIVERSITY OF TEXAS - AUSTIN 8642</b>  X381CRV GPS RECEIVER SUPPORT  07/01/1999 - 12/31/1999 FY00: \$0 Total: \$46,212  Prin. Invest.: G E LIGHTSEY  Tech. Officer: JSC/G C BLACKBURN, JSC/K W DUNN  CASE Category: 42 - ASTRONAUTICAL ENGR</p>	<p><b>NAG10 202 UNIVERSITY OF TEXAS - AUSTIN 8650</b>  EARLY DEVELOPMENT OF FERN GAMETOPHYTES IN MICROSCAVITY  10/18/1996 - 12/31/2000 FY00: \$92,500 Total: \$400,625  Prin. Invest.: S J POUX  Tech. Officer: KSC/W M KNOTT  CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)</p>
<p><b>NAG 9 1187 UNIVERSITY OF TEXAS - AUSTIN 8643</b>  INTERNATIONAL SPACE STATION GPS RECEIVER SUPPORT  02/02/2000 - 12/31/2000 FY00: \$99,828 Total: \$99,828  Prin. Invest.: G E LIGHTSEY  Tech. Officer: JSC/G C BLACKBURN, JSC/J M COX  CASE Category: 42 - ASTRONAUTICAL ENGR</p>	<p><b>NAG10 288 UNIVERSITY OF TEXAS - AUSTIN 8651</b>  MAG-LEV LAUNCH ASSIST TECHNOLOGY DEMONSTRATOR MAG-LEV  LAUNCH ASSIST TECHNOLOGY DEMONSTRATOR  07/17/2000 - 12/31/2000 FY00: \$94,998 Total: \$94,998  Prin. Invest.: R ZOWARKA  Tech. Officer: KSC/F ADAMS  CASE Category: 45 - ELECTRICAL ENGR</p>

## NASA'S UNIVERSITY PROGRAM

TEXAS

**NAS 3 00119 UNIVERSITY OF TEXAS - AUSTIN 8652**  
 FLYWHEEL ROTOR HEALTH MONITORING RESEARCH & DEVELOPMENT  
 04/26/2000 - 04/25/2003 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: J BENO  
 Tech. Officer: GRC/K MCLALLIN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAS 3 00135 UNIVERSITY OF TEXAS - AUSTIN 8653**  
 DC-DC HIGH VOLTAGE CONVERTER TECHNOLOGY DEMONSTRATION  
 05/25/2000 - 11/24/2000 FY00: \$168,618 Total: \$168,618  
 Prin. Invest.: W A WALLS  
 Tech. Officer: GRC/P GEORGE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAS 3 99169 UNIVERSITY OF TEXAS - AUSTIN 8654**  
 FLYWHEEL ROTOR HUB AND RIM HARDWARE FOR THE ACESE FOR ISS  
 07/08/1999 - 03/07/2002 FY00: \$1,637,991 Total: \$1,905,091  
 Prin. Invest.: J H BENO, R C THOMPSON  
 Tech. Officer: JSC/K KONNO  
 CASE Category: 46 - MECHANICAL ENGR

**NAS 5 32997 UNIVERSITY OF TEXAS - AUSTIN 8655**  
 OPERATION, MAINTENANCE AND ENGINEERING DEVELOPMENT OF THE  
 UNIV OF TX LASER RANGING STATION  
 04/17/1996 - 02/28/2001 FY00: \$413,500 Total: \$2,123,846  
 Prin. Invest.: P J SHELUS, R RICKLETS, J WIANT  
 Tech. Officer: GSFC/J MCGARRY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 5 97213 UNIVERSITY OF TEXAS - AUSTIN 8656**  
 GRAVITY RECOVERY AND CLIMATE EXPERIMENT (GRACE)  
 08/12/1997 - 06/12/2006 FY00: \$1,400,500 Total: \$4,444,500  
 Prin. Invest.: B TAPLEY  
 Tech. Officer: GSFC/R FITZGERALD  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 99005 UNIVERSITY OF TEXAS - AUSTIN 8657**  
 GLAS SCIENCE TEAM LEADER.  
 11/25/1998 - 11/30/2004 FY00: \$1,250,000 Total: \$2,050,000  
 Prin. Invest.: R SCHUTZ  
 Tech. Officer: GSFC/G SMITH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 9 97045 UNIVERSITY OF TEXAS - AUSTIN 8658**  
 MARS PRECISION LANDING TASK  
 03/03/1997 - 01/11/2000 FY00: \$0 Total: \$479,725  
 Prin. Invest.: B D TAPLEY, R H BISHOP  
 Tech. Officer: JSC/R CARPENTER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 303 UNIVERSITY OF TEXAS - AUSTIN 8659**  
 DURABILITY OF SANDWICH STRUCTURES  
 06/04/1998 - 04/30/2000 FY00: \$0 Total: \$113,917  
 Prin. Invest.: K LIECHTI, S KYRIAKIDES  
 Tech. Officer: LARC/T S GRITES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 5276 UNIVERSITY OF TEXAS - AUSTIN 8660**  
 DATA INTENSIVE VISUALIZATION  
 07/13/1998 - 12/31/2000 FY00: \$42,666 Total: \$113,330  
 Prin. Invest.: C BAJAJ  
 Tech. Officer: ARC/M GERALD-YAMASAKI, ARC/A VAZIRI  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 3 677 UNIVERSITY OF TEXAS - AUSTIN 8661**  
 INVESTIGATION OF STRAIN/VORTICITY AND LARGE-SCALE FLOW STRUCTURE IN TURBULENT NONPREMIXED JET FLAMES  
 02/26/1999 - 01/13/2003 FY00: \$90,489 Total: \$174,157  
 Prin. Invest.: N T CLEMENS  
 Tech. Officer: GRC/K SACKSTEDER  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 5 154 UNIVERSITY OF TEXAS - AUSTIN 8662**  
 GRAND CHALLENGE RESEARCH  
 08/21/1996 - 06/30/2000 FY00: \$0 Total: \$900,000  
 Prin. Invest.: G CAREY  
 Tech. Officer: GSFC/J R FISCHER  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NCC 5 463 UNIVERSITY OF TEXAS - AUSTIN 8663**  
 EVALUATION AND VALIDATION OF EO-1 AND LANDSAT 7 IMAGERY THROUGH AN ANALYSIS OF LAND COVER/LAND USE  
 02/29/2000 - 12/31/2000 FY00: \$40,013 Total: \$40,013  
 Prin. Invest.: W A WHITE  
 Tech. Officer: GSFC/S G UNGAR  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 9 73 UNIVERSITY OF TEXAS - AUSTIN 8664**  
 SIMULATION OF HYPERVELOCITY IMPACT ON AL-NEXTEL KEVLOR ORBITAL DEBRIS SHIELDS  
 08/10/1998 - 06/30/2000 FY00: \$0 Total: \$81,752  
 Prin. Invest.: E P FAHRENTHOLD  
 Tech. Officer: JSC/E L CHRISTIANSEN  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NGT 1 52147 UNIVERSITY OF TEXAS - AUSTIN 8665**  
 GRADUATE STUDENT RESEARCH PROGRAM (GSRP)  
 07/26/1996 - 08/31/2001 FY00: \$22,000 Total: \$98,001  
 Prin. Invest.: W T FOWLER  
 Tech. Officer: LARC/T A TOLAY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 33 UNIVERSITY OF TEXAS - AUSTIN 8666**  
 DEVELOPMENT OF A PARALLEL ALGORITHM FOR LAND SURFACE HYDROLOGY AND RIVER TRANSPORT IN COUPLED .....  
 07/29/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J FAMIGLIETTI  
 Tech. Officer: GSFC/G A SOFFEN, GSFC/M SUAREZ  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 72 UNIVERSITY OF TEXAS - AUSTIN 8667**  
 GSRP TRAINING GRANT - PAUL THOMPSON - MASS DISTRIBUTION IN THE EARTH'S SYSTEMS: SPACE GEODETIC MEASUREMENTS  
 06/04/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: B D TAPLEY  
 Tech. Officer: GSFC/G S SOFFEN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 81 UNIVERSITY OF TEXAS - AUSTIN 8668**  
 A STUDY OF LAND/ATMOSPHERE INTERACTIONS IN THE DEVELOPMENT  
 OF MESOSCALE CONVECTIVE SYSTEMS USING A  
 05/11/1999 - 08/31/2000 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* J S FAMIGLIETTI  
*Tech. Officer:* GSFC/M S BURRELL  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NGT 5 30008 UNIVERSITY OF TEXAS - AUSTIN 8669**  
 A CONTINENTAL RIVER FLOWING ALGORITHM FOR GLOBAL WAVE COUPLED  
 EARTH SYSTEM MODELS  
 10/14/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* J FAMIGLIETTI  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30162 UNIVERSITY OF TEXAS - AUSTIN 8670**  
 ESTIMATING CHANGES IN CONTINENTAL WATER STORAGE FROM  
 SATELLITE OBSERVATIONS OF TIME-DEPENDENT  
 08/31/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* J S FAMIGLIETTI, ROD  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40053 UNIVERSITY OF TEXAS - AUSTIN 8671**  
 TEXAS SPACE GRANT CONSORTIUM & GLOBE TEACHER TRAINING  
 02/12/1997 - 01/31/2001 FY00: \$485,000 Total: \$2,090,383  
*Prin. Invest.:* B D TAPLEY  
*Tech. Officer:* GSFC/D D DETROYE  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NGT 5 50004 UNIVERSITY OF TEXAS - AUSTIN 8672**  
 THE VARIABILITY OF OCEANIC ANGULAR MOMENTUM AND THERMAL  
 BUDGET: A GEODETIC APPROACH TO GLOBAL CLIMATE  
 11/16/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* C WILSON  
*Tech. Officer:* GSFC/A NURRIDIN  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NGT 5 50239 UNIVERSITY OF TEXAS - AUSTIN 8673**  
 IMPROVED ESTIMATION OF SURFACE TOPOGRAPHY & VEGETATION  
 STRUCTURE BY COMBINING INTERFEROMETRIC SAR  
 06/03/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* M CRAWFORD  
*Tech. Officer:* GSFC/K SMITH  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NGT 5 50301 UNIVERSITY OF TEXAS - AUSTIN 8674**  
 GALAXY EVOLUTION AT REDSHIFTS OF  $z=1-2$   
 06/20/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* G J HILL  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NGT 9 20 UNIVERSITY OF TEXAS - AUSTIN 8675**  
 TRAINING GRANT  
 07/08/1999 - 08/31/2002 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* R H BISHOP  
*Tech. Officer:* JSC/D J PEARSON  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER

**NGT 9 35 UNIVERSITY OF TEXAS - AUSTIN 8676**  
 TRAINING GRANT  
 06/04/1998 - 12/31/2000 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* R H BISHOP  
*Tech. Officer:* JSC/B COCKRELL  
*CASE Category:* 22 - COMPUTER SCIENCE

**NGT 9 45 UNIVERSITY OF TEXAS - AUSTIN 8677**  
 ADVANCEMENT OF CURRENT PRECISION-LANDING TECHNOLOGY FOR  
 MANNED MARS LANDERS  
 11/05/1999 - 04/30/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* R H BISHOP  
*Tech. Officer:* JSC/B COCKRELL  
*CASE Category:* 41 - AERONAUTICAL ENGINEERING

**NAG 2 1246 UNIVERSITY OF TEXAS - DALLAS 8678**  
 REPRESENTATIONS & INVERSION OF NONLINEAR SYSTEMS  
 08/05/1998 - 09/30/1998 FY00: -\$232 Total: \$10,768  
*Prin. Invest.:* L R HUNT  
*Tech. Officer:* ARC/G MEYER  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 3740 UNIVERSITY OF TEXAS - DALLAS 8679**  
 MULTIPLE TETHERED SATELLITES FOR IONOSPHERIC STUDY  
 03/06/1997 - 12/31/1998 FY00: -\$533 Total: \$72,370  
*Prin. Invest.:* D A HEELIS  
*Tech. Officer:* GSFC/R HOWARD  
*CASE Category:* 13 - PHYSICS

**NAG 5 4187 UNIVERSITY OF TEXAS - DALLAS 8680**  
 DEVELOPMENT AND DEMONSTRATION OF A ROBUST MICRO-ELECTRO-  
 MECHANICAL PRESSURE TRANSDUCER FOR LOW ALTITUDE SATELLITE  
 04/01/1997 - 10/30/2000 FY00: -\$10,018 Total: \$183,721  
*Prin. Invest.:* D D EARLE  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4374 UNIVERSITY OF TEXAS - DALLAS 8681**  
 INTERDISCIPLINARY STUDY OF PLANETARY ATMOSPHERES  
 04/25/1997 - 12/31/1998 FY00: -\$74 Total: \$59,926  
*Prin. Invest.:* D R HODGES, JR.  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 4465 UNIVERSITY OF TEXAS - DALLAS 8682**  
 THE SPATIAL DISTRIBUTION OF IONOSPHERIC PLASMA AND HIGH  
 LATITUDES  
 05/27/1997 - 04/30/2001 FY00: \$87,000 Total: \$282,115  
*Prin. Invest.:* D A HEELIS, NONE  
*Tech. Officer:* GSFC/M M MELLOTT  
*CASE Category:* 13 - PHYSICS

**NAG 5 4644 UNIVERSITY OF TEXAS - DALLAS 8683**  
 MICRO-TIP ARRAY MASS SPECTROMETER ION SOURCE  
 05/30/1997 - 05/31/1999 FY00: \$0 Total: \$71,100  
*Prin. Invest.:* D H HOFFMAN  
*Tech. Officer:* GSFC/B CAMPBELL  
*CASE Category:* 99 - MULTIDISCIPLINARY, OTHER



## NASA'S UNIVERSITY PROGRAM

TEXAS

**NAG 5 5076 UNIVERSITY OF TEXAS - DALLAS 8684**  
 PROPOSAL TO COMPLETE SOUNDING ROCKET PROJECT 21.11 4  
 05/09/1996 - 04/30/2000 FY00: \$0 Total: \$203,452  
 Prin. Invest.: G D EARLE  
 Tech. Officer: GSFC/L W GURKIN  
 CASE Category: 13 - PHYSICS

**NAG 5 5086 UNIVERSITY OF TEXAS - DALLAS 8685**  
 ROCKET/RADAR INVESTIGATION OF LOWER IONOSPHERIC ELECTRODYNAMICS ASSOCIATED WITH INTENSE MID-LATITUDE  
 06/28/1996 - 02/29/2000 FY00: \$0 Total: \$218,111  
 Prin. Invest.: R A HEELIS  
 Tech. Officer: GSFC/L W GURKIN  
 CASE Category: 13 - PHYSICS

**NAG 5 5257 UNIVERSITY OF TEXAS - DALLAS 8686**  
 A SEQUENTIAL ROCKET INVESTIGATION OF WINDS AND PLASMA LAYERS IN THE NIGHTTIME E-REGION  
 02/28/2000 - 02/21/2003 FY00: \$331,100 Total: \$331,100  
 Prin. Invest.: G D EARLE  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 6534 UNIVERSITY OF TEXAS - DALLAS 8687**  
 EXPANSION OF REMOTE SENSING FACILITIES IN THE GEOSCIENCES DEPARTMENT AT THE UNIVERSITY OF TEXAS AT  
 10/23/1997 - 09/30/1999 FY00: -\$2,140 Total: \$126,168  
 Prin. Invest.: R STERN  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9297 UNIVERSITY OF TEXAS - DALLAS 8688**  
 A WEB-BASED DISTRIBUTION OF IONOSPHERIC THERMAL PLASMA DATA FROM THE DMS SPACECRAFT  
 04/17/2000 - 04/30/2001 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: M HAIRSTON  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9476 UNIVERSITY OF TEXAS - DALLAS 8689**  
 TURBO CODES & THEIR APPLICATION IN MOBILE SYSTEMS  
 04/24/2000 - 04/30/2001 FY00: \$49,999 Total: \$49,999  
 Prin. Invest.: J P FONSEKA  
 Tech. Officer: GSFC/W H MILLER  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 5 23 UNIVERSITY OF TEXAS - DALLAS 8690**  
 THE RELATIONSHIPS BETWEEN SPATIAL STRUCTURE IN THE MAGNETIC FIELD PERTURBATIONS AND THE ELECTRIC...  
 07/15/1996 - 07/14/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: R A HELLIS Prin. Invest.: NONE  
 Tech. Officer: GSFC/G A SOFFEN, GSFC/R PFAFF  
 CASE Category: 13 - PHYSICS

**NGT 5 50058 UNIVERSITY OF TEXAS - DALLAS 8691**  
 THEORY, MODELING, NUMERICAL SIMULATION, AND EXPERIMENTAL FIBER NONLINEARITIES IN TIME-ALIGNED WDM  
 08/26/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: L TAAMIL/RUIZ  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1012 UNIVERSITY OF TEXAS - EL PASO 8692**  
 MONITORING SOFTWARE THROUGH INTEGRITY CONSTRAINTS  
 09/21/1995 - 08/31/2000 FY00: \$0 Total: \$180,487  
 Prin. Invest.: A Q GATES  
 Tech. Officer: ARC/M R LOWRY, ARC/G S LEE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1138 UNIVERSITY OF TEXAS - EL PASO 8693**  
 VERIFICATION OF NASA MISSION-CRITICAL SOFTWARE WITHOUT SACRIFICING PERFORMANCE  
 07/14/1997 - 12/31/2000 FY00: \$0 Total: \$199,887  
 Prin. Invest.: P J TELLER  
 Tech. Officer: ARC/LOWRY  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 3 1820 UNIVERSITY OF TEXAS - EL PASO 8694**  
 NOVEL CDS-CTDE SOLAR CELL STRUCTURES ON FLEXIBLE METAL FOIL SUBSTRATES  
 04/16/1996 - 04/15/2000 FY00: \$0 Total: \$264,240  
 Prin. Invest.: V P SINGH, J C MCCLURE, G B LUSH  
 Tech. Officer: GRC/E B CLARK  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 3 2303 UNIVERSITY OF TEXAS - EL PASO 8695**  
 THIN-FILM SOLAR CELLS FOR SPACE APPLICATION THIN-FILM SOLAR CELLS FOR SPACE APPLICATION  
 11/23/1999 - 10/28/2001 FY00: \$199,945 Total: \$199,945  
 Prin. Invest.: G B LUSH  
 Tech. Officer: GRC/A HEPP  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 4 150 UNIVERSITY OF TEXAS - EL PASO 8696**  
 (FAR) AN IMAGING FRAMEWORK FOR AERODYNAMIC, FLUID MECHANIC, AND HEAT TRANSFER SCIENTIFIC-GRADE  
 03/03/1998 - 02/27/2001 FY00: \$94,177 Total: \$294,177  
 Prin. Invest.: R WICKER  
 Tech. Officer: DFRC/J BRADEN, DFRC/K K GUPTA  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6163 UNIVERSITY OF TEXAS - EL PASO 8697**  
 INTRODUCTORY TRAINING FOR PRE-SERVICE TEACHERS IN  
 08/01/1997 - 07/31/2000 FY00: \$0 Total: \$80,000  
 Prin. Invest.: V HARDER  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8881 UNIVERSITY OF TEXAS - EL PASO 8698**  
 DATA ASSIMILATIVE ANALYSIS OF THE GGS DATA SET USING GLOBAL SIMULATIONS  
 11/30/1999 - 05/31/2001 FY00: \$18,070 Total: \$18,070  
 Prin. Invest.: D E LOPEZ  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 13 - PHYSICS

**NAG 5 8882 UNIVERSITY OF TEXAS - EL PASO 8699**  
 SCIENCE EDUCATIONAL INSTRUCTIONAL MATERIALS FOR ISTP/SOLARMAX  
 11/30/1999 - 01/14/2001 FY00: \$53,228 Total: \$53,228  
 Prin. Invest.: R E LOPEZ  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 8883 UNIVERSITY OF TEXAS - EL PASO 8700**  
 THE ASSIMILATION OF SATELLITE DATA INTO GLOBAL MHD SIMULATIONS  
 (SEC GI PROGRAM)  
 11/30/1999 - 08/31/2000 FY00: \$8,275 Total: \$8,275  
 Prin. Invest.: R E LOPEZ  
 Tech. Officer: GSFC/M H ACUNA  
 CASE Category: 13 - PHYSICS

**NAG 5 9213 UNIVERSITY OF TEXAS - EL PASO 8701**  
 PROBING NEUTRINO-INDUCED NUCLEOSYNTHESIS FROM THE ABUN-  
 DANCES OF FLUORINEBORON, LITHIUM, & OXYGEN  
 03/23/2000 - 03/31/2001 FY00: \$84,940 Total: \$84,940  
 Prin. Invest.: V E SMITH  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9542 UNIVERSITY OF TEXAS - EL PASO 8702**  
 REMOTE SENSING SPECTRAL IDENTIFICATION OF FRESHWAT ER  
 PLANKTON  
 05/09/2000 - 05/14/2001 FY00: \$99,892 Total: \$99,892  
 Prin. Invest.: D SCHULZ-MAKUCH  
 Tech. Officer: GSFC/D MENCHAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 8 1393 UNIVERSITY OF TEXAS - EL PASO 8703**  
 R/S "PLASTIC OPTICAL FIBERS FOR ELECTRO-OPTIC ALL- OPTIC AND  
 OPTICAL SENSING APPLICATIONS"  
 08/18/1997 - 08/17/2000 FY00: \$99,871 Total: \$299,870  
 Prin. Invest.: C DIRK  
 Tech. Officer: MSFC/B PENN  
 CASE Category: 13 - PHYSICS

**NAG 8 1645 UNIVERSITY OF TEXAS - EL PASO 8704**  
 INVESTIGATION OF FRICTION STIR WELDING  
 09/30/1999 - 09/30/2001 FY00: \$70,000 Total: \$170,000  
 Prin. Invest.: J C MCCLURE  
 Tech. Officer: MSFC/A BEAM, MSFC/W LOVE  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 9 920 UNIVERSITY OF TEXAS - EL PASO 8705**  
 BASIC STUDIES OF CDTE SOLAR CELLS  
 12/18/1996 - 10/01/1999 FY00: -\$1,731 Total: \$289,451  
 Prin. Invest.: G LUSH  
 Tech. Officer: JSC/F BEIGMONTE  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 9 1099 UNIVERSITY OF TEXAS - EL PASO 8706**  
 DATA FUSION METHODOLOGISTS FOR DAMAGE MONITORING OF AERO-  
 SPACE STRUCTURES  
 05/15/1999 - 05/14/2002 FY00: \$50,000 Total: \$105,189  
 Prin. Invest.: C FERREGUT  
 Tech. Officer: JSC/A R ROCHA  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 9 1100 UNIVERSITY OF TEXAS - EL PASO 8707**  
 FUNDAMENTAL STUDIES OF CRATERING PHENOMMENA  
 05/21/1999 - 05/31/2002 FY00: \$52,088 Total: \$103,773  
 Prin. Invest.: L E MURR  
 Tech. Officer: JSC/F HORZ  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1171 UNIVERSITY OF TEXAS - EL PASO 8708**  
 EXPERIMENTS FOR THE GRANTS AND COOP AGREEMENT HANDBOOKS  
 09/28/1999 - 09/29/2001 FY00: \$39,000 Total: \$138,344  
 Prin. Invest.: L E MURR  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG10 225 UNIVERSITY OF TEXAS - EL PASO 8709**  
 CONTINUOUS HAZARD TRACKING & FAILURE ANALYSIS METHODOLOGY  
 09/17/1997 - 10/31/2000 FY00: \$0 Total: \$199,383  
 Prin. Invest.: R QUINTANA  
 Tech. Officer: KSC/B DELIWALA  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG10 287 UNIVERSITY OF TEXAS - EL PASO 8710**  
 NONPARAMETRIC INFERENCE UNDER ORDER CONSTRAINTS FO R  
 COMPLETE AND CENSORED DATE: MATERIALS SCIENCE  
 06/28/2000 - 06/27/2003 FY00: \$93,089 Total: \$93,089  
 Prin. Invest.: D ROJO  
 Tech. Officer: KSC/R LEE  
 CASE Category: 21 - MATHEMATICS

**NCC 5 97 UNIVERSITY OF TEXAS - EL PASO 8711**  
 THE UNIVERSITY OF TEXAS AT EL PASO NETWORK RESOURCES AND  
 TRAINING SITES  
 08/15/1995 - 08/14/2001 FY00: \$391,000 Total: \$2,623,999  
 Prin. Invest.: M KOLITSKY  
 Tech. Officer: GSFC/J BENNETT  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 5 207 UNIVERSITY OF TEXAS - EL PASO 8712**  
 DISTANCE LEARNING STRATEGIES PROMOTING MINORITY AC AND  
 RESOURCES  
 06/11/1997 - 05/31/2000 FY00: \$0 Total: \$392,605  
 Prin. Invest.: M A KOLITSKY  
 Tech. Officer: GSFC/R D EASON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 209 UNIVERSITY OF TEXAS - EL PASO 8713**  
 PAN AMERICAN CENTER FOR EARTH AND ENVIRONMENTAL ST  
 07/24/1997 - 06/30/2001 FY00: \$579,986 Total: \$3,379,953  
 Prin. Invest.: S A STARKS  
 Tech. Officer: GSFC/P SAKIMOTO  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 468 UNIVERSITY OF TEXAS - EL PASO 8714**  
 CERTIFICATION OF MATHEMATICS AND SCIENCE TEACHERS  
 03/07/2000 - 03/14/2001 FY00: \$197,460 Total: \$197,460  
 Prin. Invest.: S BLAKE  
 Tech. Officer: GSFC/B WHITE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 498 UNIVERSITY OF TEXAS - EL PASO 8715**  
 PAN AMERICAN CENTER FOR EARTH AND ENVIRONMENTAL STUDIES  
 05/01/2000 - 06/30/2001 FY00: \$434,599 Total: \$434,599  
 Prin. Invest.: S STARKS  
 Tech. Officer: GSFC/E PAYLOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## NASA'S UNIVERSITY PROGRAM

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**NCC 8 137 UNIVERSITY OF TEXAS - EL PASO 8716**  
 R/S "ANALYSIS OF FRICTION STIR WELDING"  
 05/27/1997 - 05/26/2000 FY00: \$0 Total: \$398,533  
 Prin. Invest.: J MCCLURE  
 Tech. Officer: MSFC/J DING  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 9 801 UNIVERSITY OF TEXAS AT BROWNSVILLE 8717**  
 PREPARING TEACHERS TO TEACH SCI STUDENTS INCLUSIVE SETTINGS  
 07/28/1995 - 08/14/1999 FY00: \$0 Total: \$200,000  
 Prin. Invest.: R RAMIREZ, JR., K I NORMAN  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1054 UNIVERSITY OF TEXAS AT BROWNSVILLE 8718**  
 PRE MATH, SCIENCE, ENGINEERING & TECH SPT PROGRAM  
 09/18/1998 - 08/31/2001 FY00: \$7,907 Total: \$75,578  
 Prin. Invest.: O RIVAS  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1064 UNIVERSITY OF TEXAS AT BROWNSVILLE 8719**  
 NRA PACE/MSET BLAST-OFF TO AN ENGINEERING CAREER  
 01/07/1999 - 06/01/2001 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: W WELLS  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 1238 UNIVERSITY OF TEXAS AT BROWNSVILLE 8720**  
 SOUTH TEXAS ENGINEERING MATH & SCIENCE PROGRAM  
 06/15/2000 - 05/18/2001 FY00: \$4,000 Total: \$4,000  
 Prin. Invest.: J GARCIA  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 438 UNIVERSITY OF TEXAS AT BROWNSVILLE 8721**  
 C+P=M2T: SOUTH TEXAS MASTER MATHEMATICS TEACHER PREPARATION PROGRAMS  
 03/03/2000 - 02/28/2001 FY00: \$196,160 Total: \$196,160  
 Prin. Invest.: J TELESE  
 Tech. Officer: GSFC/B WHITE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1383 UNIVERSITY OF TEXAS AT SAN ANTONIO 8722**  
 PARALLEL AERODYNAMICS SIMULATION IN DISTRIBUTED ENVIRONMENTS  
 09/14/1999 - 08/31/2001 FY00: \$100,000 Total: \$194,961  
 Prin. Invest.: A T CHRONPOULOS  
 Tech. Officer: ARC/B J COLLINS, ARC/G S LEE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 6040 UNIVERSITY OF TEXAS AT SAN ANTONIO 8723**  
 CHANGING THE PARADIGM; PREPARING STUDENTS FOR THE COMPUTING PROFESSION IN THE 21ST CENTURY  
 12/15/1999 - 12/11/2000 FY00: \$90,713 Total: \$90,713  
 Prin. Invest.: R F SINCOVEC  
 Tech. Officer: ARC/M J LEON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 3 2060 UNIVERSITY OF TEXAS AT SAN ANTONIO 8724**  
 RESEARCH & EDUCATION IN PROBABILISTIC STRUCTURAL ANALYSIS & RELIABILITY  
 07/10/1997 - 01/31/2000 FY00: \$0 Total: \$400,000  
 Prin. Invest.: L BOYCE  
 Tech. Officer: GRC/C C CHAMIS, GRC/S S PAI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2297 UNIVERSITY OF TEXAS AT SAN ANTONIO 8725**  
 PARTNERSHIP IN PROBABILISTIC STRUCTURAL ANALYSIS METHODS  
 10/05/1999 - 08/31/2001 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: R D MANTEUFEL  
 Tech. Officer: GRC/C CHAMIS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1720 UNIVERSITY OF TEXAS AT SAN ANTONIO 8726**  
 LATIN HYPERCUBE SAMPLING IN RELIABILITY ANALYSIS  
 06/07/2000 - 06/06/2003 FY00: \$96,018 Total: \$96,018  
 Prin. Invest.: R MANTUEFEL  
 Tech. Officer: MSFC/F SAFIE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 9 950 UNIVERSITY OF TEXAS AT SAN ANTONIO 8727**  
 TEXAS PREFRESHMAN ENGINEERING PROGRAM  
 07/16/1997 - 05/26/2000 FY00: \$198,000 Total: \$792,812  
 Prin. Invest.: M P BERRIOZABAL  
 Tech. Officer: JSC/L ARMENDARIZ  
 CASE Category: 21 - MATHEMATICS

**NAG 9 982 UNIVERSITY OF TEXAS AT SAN ANTONIO 8728**  
 MARS CRYOGENIC STORAGE & DISTRIBUTED THERMAL MODELING  
 11/25/1997 - 12/31/1999 FY00: -\$66 Total: \$15,434  
 Prin. Invest.: A KARIMI  
 Tech. Officer: JSC/D G SICKOREZ  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG10 155 UNIVERSITY OF TEXAS AT SAN ANTONIO 8729**  
 MULTI RESOLUTION IMAGE ANALYSIS FOR ENVIRONMENTAL MAPPING APPLICATIONS  
 03/27/1995 - 05/15/2000 FY00: -\$139,550 Total: \$358,950  
 Prin. Invest.: M D DESAI  
 Tech. Officer: KSC/J C SAAER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 465 UNIVERSITY OF THE INCARNATE WORD 8730**  
 INTEGRATING MATH AND SCIENCE FOR PRE-SERVICE & IN-SERVICE PARTNERSHIPS  
 03/08/2000 - 02/28/2003 FY00: \$140,132 Total: \$140,132  
 Prin. Invest.: J BEAUFORD  
 Tech. Officer: GSFC/B WHITE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## UTAH

**NAG 5 6782 BRIGHAM YOUNG UNIVERSITY 8731**  
 COMPUTING RESOURCES FOR ENHANCED ENVIRONMENTAL ASSESSMENT AND RESEARCH CAPABILITIES  
 01/16/1998 - 01/14/1999 FY00: -\$12,463 Total: \$117,521  
 Prin. Invest.: M A JENSEN  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7711 BRIGHAM YOUNG UNIVERSITY 8732**  
 FDG FOR 'GEOLOGIC AND ARCHAEOLOGIC APPLICATIONS OF HIGH-RESOLUTION SAR' PI:DAVID V. ARNOLD, SENH98  
 09/28/1998 - 03/31/2000 FY00: \$125,000 Total: \$187,488  
 Prin. Invest.: D V ARNOLD  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 8746 BRIGHAM YOUNG UNIVERSITY 8733**  
 POLAR ICE SHEET MONITORING FROM LONG TERM SCATTERO METER AND RADIOMETER OBSERVATIONS  
 08/18/1999 - 08/31/2001 FY00: \$88,785 Total: \$176,269  
 Prin. Invest.: D LONG  
 Tech. Officer: GSFC/E LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9625 BRIGHAM YOUNG UNIVERSITY 8734**  
 SCATTEROMETER CLIMATE RECORD PATHFINDER  
 05/23/2000 - 04/30/2001 FY00: \$104,667 Total: \$104,667  
 Prin. Invest.: D LONG  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9638 BRIGHAM YOUNG UNIVERSITY 8735**  
 SYNERGISTIC USE OF TRMM AND SEAWINDS DATA  
 06/08/2000 - 11/30/2000 FY00: \$14,583 Total: \$14,583  
 Prin. Invest.: D G LONG  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 8 52877 BRIGHAM YOUNG UNIVERSITY 8736**  
 HEAT ADDITION IN A FIXED GEOMETRY SCRAMJET ENGINE.  
 08/24/1999 - 08/14/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: R DAINES  
 Tech. Officer: MSFC/J DOWDY  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 1 2048 UNIVERSITY OF UTAH 8737**  
 CLOUD SCALE NUMERICAL MODELING OF THE ARCTIC BOUND ARY LAYER  
 04/01/1998 - 06/30/2001 FY00: \$72,000 Total: \$256,653  
 Prin. Invest.: S K KRUEGER  
 Tech. Officer: LARC/D S MCDOUGAL, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2063 UNIVERSITY OF UTAH 8738**  
 FACILITY FOR ATMOSPHERIC REMOTE SENSING (FARS) CIRRUS MEASUREMENTS FOR FIRE III  
 06/30/1998 - 05/31/2001 FY00: \$81,000 Total: \$171,000  
 Prin. Invest.: K SASSON  
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2250 UNIVERSITY OF UTAH 8739**  
 USING GRIOND-BASED MEASUREMENTS AND RETRIEVALS TO VALIDATE SATELLITE DATA  
 01/19/2000 - 10/31/2002 FY00: \$60,159 Total: \$60,159  
 Prin. Invest.: X DONG  
 Tech. Officer: LARC/P MINNIS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2319 UNIVERSITY OF UTAH 8740**  
 MOLECULAR DYNAMICS SIMULATIONS OF RANDOM IONOMERS AND NANOCOMPOSITES  
 07/14/2000 - 06/30/2003 FY00: \$31,965 Total: \$31,965  
 Prin. Invest.: G D SMITH, M A GLASSER  
 Tech. Officer: LARC/J A HINKLEY, LARC/T S GATES  
 CASE Category: 12 - CHEMISTRY

**NAG 2 1277 UNIVERSITY OF UTAH 8741**  
 CELLULAR AUTOMATION-BASED ENHANCEMENT OF AIR TRAFF IC  
 01/04/1999 - 09/30/2000 FY00: \$21,000 Total: \$45,986  
 Prin. Invest.: S DEVASIA  
 Tech. Officer: ARC/G MEYER  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 2 1444 UNIVERSITY OF UTAH 8742**  
 THE UAV CIRRUS CLOUD MEASUREMENT PROGRAM: A PROPO SAL IN SUPPORT THE NASA ESE UAV  
 09/27/2000 - 12/31/2000 FY00: \$90,000 Total: \$90,000  
 Prin. Invest.: G G MACE  
 Tech. Officer: ARC/S S WEGENER, ARC/R S HIPSKIN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 3 2403 UNIVERSITY OF UTAH 8743**  
 SIMULATION OF COMBUSTION SYSTEMS WITH REALISTIC G- JITTER  
 04/26/2000 - 03/22/2003 FY00: \$44,846 Total: \$44,846  
 Prin. Invest.: D E MELL  
 Tech. Officer: GRC/H D ROSS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 3802 UNIVERSITY OF UTAH 8744**  
 DEVELOPMENT OF EARTH OCCULTATION TECHNIQUE ABOVE 1 HIGH ENERGY EMISSION FROM GAMMA-RAY BURSTS, \$39.9  
 11/27/1996 - 11/30/1999 FY00: \$0 Total: \$77,983  
 Prin. Invest.: B L DINGUS  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3802 UNIVERSITY OF UTAH 8745**  
 ORBITING ARRAY OF WIDE-ANGLE LIGHT COLLECTORS (OWL ORBITING "EYES" TO STUDY AIR SHOWERS INITIATED BY  
 03/03/1997 - 02/28/2001 FY00: \$0 Total: \$120,646  
 Prin. Invest.: E C LOH  
 Tech. Officer: GSFC/J F ORMES  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4452 UNIVERSITY OF UTAH 8746**  
 RADIATION ANTICARCINOGENESIS BY THIAZOLIDINE PRODR  
 05/20/1997 - 02/28/2000 FY00: \$0 Total: \$362,788  
 Prin. Invest.: R WARTERS  
 Tech. Officer: GSFC/W SHIMMERLING  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 5195 UNIVERSITY OF UTAH 8747**  
 PROPOSAL FOR SUPPORT OF THE 26TH INTERNATIONAL COSMIC RAY CONFERENCE, UNIVERSITY OF UTAH 1999  
 05/21/1998 - 09/30/2000 FY00: \$0 Total: \$58,620  
 Prin. Invest.: E LOH  
 Tech. Officer: GSFC/B A MERRITT  
 CASE Category: 13 - PHYSICS

**NAG 5 8458 UNIVERSITY OF UTAH 8748**  
 CLOUD PROPERTY & SURFACE RADIATION OBSERVATIONS & DIAGNOSTICS IN SUPPORT OF EOS, CERES, MODIS & MISR  
 10/14/1997 - 09/30/2001 FY00: \$341,746 Total: \$1,474,767  
 Prin. Invest.: G MACE  
 Tech. Officer: GSFC/D STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 7447 UNIVERSITY OF UTAH 8749**  
 CONTINUED SUPPORT OF THE GCTE FOCUS 1 OFFICE (ECOSYSTEM PHYSIOLOGY)  
 06/19/1998 - 07/31/2001 FY00: \$75,262 Total: \$299,001  
 Prin. Invest.: J R EHLERINGER  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7521 UNIVERSITY OF UTAH 8750**  
 INVESTIGATION OF PHYSICAL PROCESS DYNAMICS DURING COLD SEASON FLOODING  
 06/18/1998 - 06/14/2001 FY00: \$0 Total: \$37,247  
 Prin. Invest.: D TARBOTON  
 Tech. Officer: GSFC/E ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7828 UNIVERSITY OF UTAH 8751**  
 EGRET OBSERVING TIME REQUEST FOR GAMMA-RAY BURSTS  
 11/16/1998 - 11/30/1999 FY00: \$0 Total: \$14,997  
 Prin. Invest.: B J DINGUS  
 Tech. Officer: GSFC/J P NORRIS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7871 UNIVERSITY OF UTAH 8752**  
 THE GLACIER DYNAMICS AND MASS FLUX OF ANTARCTIC ICE STREAMS FROM RADARSAT INSAR  
 01/21/1999 - 12/31/2000 FY00: \$48,677 Total: \$96,674  
 Prin. Invest.: R FORESTER  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8277 UNIVERSITY OF UTAH 8753**  
 ACCRETION ONTO SUPERMASSIVE BLACK HOLES: OBSERVATIONAL SIGNALS FROM 3-D33-DIMENSION (ATP 98)  
 03/02/1999 - 02/28/2001 FY00: \$37,795 Total: \$64,594  
 Prin. Invest.: B C BROMLEY  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8339 UNIVERSITY OF UTAH 8754**  
 GLOBAL DISTRIBUTION OF LIGHTNING FROM THE DTD AND RELATE GLOBAL DISTRIBUTION OF MCSS FROM TH  
 04/26/1999 - 03/31/2001 FY00: \$88,389 Total: \$142,337  
 Prin. Invest.: E ZIPSER  
 Tech. Officer: GSFC/J C DODGE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8550 UNIVERSITY OF UTAH 8755**  
 THE SPATIAL AND TEMPORAL CHARACTERISTICS OF HIGH LATITUDE SEASONAL SNOW MELT AS DETECTED BY PASSIVE  
 06/02/1999 - 05/31/2001 FY00: \$72,825 Total: \$128,886  
 Prin. Invest.: K JEZEK  
 Tech. Officer: GSFC/J C DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8561 UNIVERSITY OF UTAH 8756**  
 VALIDATION AND TRANSFERABILITY OF TROPICAL RAIN ESTIMATION METHODS  
 05/17/1999 - 09/30/2001 FY00: \$150,166 Total: \$313,521  
 Prin. Invest.: E J ZIPSER  
 Tech. Officer: GSFC/R W LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8826 UNIVERSITY OF UTAH 8757**  
 HIGH ENERGY GAMMA-RAY ASTROPHYSICS WORKSHOP  
 09/28/1999 - 08/31/2000 FY00: \$0 Total: \$4,987  
 Prin. Invest.: M SALAMON  
 Tech. Officer: GSFC/L KALUZIENSKI  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9717 UNIVERSITY OF UTAH 8758**  
 VALIDATION AND TRANSFERABILITY OF TROPICAL LATENT HEATING ESTIMATES  
 06/21/2000 - 11/30/2000 FY00: \$45,924 Total: \$45,924  
 Prin. Invest.: E J ZIPSER  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1665 UNIVERSITY OF UTAH 8759**  
 NOVEL MICROSTRUCTURES FOR POLYMER-LIQUID CRYSTAL CO-COMPOSITE MATERIALS  
 06/15/2000 - 11/30/2003 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: J J MAGDA  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 00120 UNIVERSITY OF UTAH 8760**  
 MEASUREMENT OF THE ATMOSPHERIC UV NIGHTGLOW FROM A HIGH ALTITUDE BALLOON (NIGHTGLOW)  
 02/01/2000 - 05/31/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: E LOHBER, E LOH  
 Tech. Officer: GSFC/L BARBIER  
 CASE Category: 11 - ASTRONOMY

**NCC 1 256 UNIVERSITY OF UTAH 8761**  
 DEVELOPMENT OF PREDICTIVE CAPABILITIES FOR DAMAGE TOLERANCE IN STITCHED COMPOSITE MATERIALS  
 05/01/1997 - 04/30/2001 FY00: \$33,839 Total: \$207,022  
 Prin. Invest.: D O ADAMS  
 Tech. Officer: LARC/J R REEDERS  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 5 297 UNIVERSITY OF UTAH 8762**  
 CARBON AND OXYGEN ISOTOPE RATIO CO2 FLUX ANALYSES AT THE SOIL, CANOPY, AND LANDSCAPE SCALES  
 06/16/1998 - 12/31/2000 FY00: \$204,739 Total: \$605,063  
 Prin. Invest.: J EHLERINGER  
 Tech. Officer: GSFC/D DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30184 UNIVERSITY OF UTAH 8763**  
 IMPLICATIONS OF ARCTIC WARMING AS DETERMINED BY SNOWMELT ONSET DATES OBSERVED WITH REMOTELY SENSE  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: R R FORSTER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30202 UNIVERSITY OF UTAH 8764**  
 THE O OF ATMOSPHERIC CO2: SEEING THE GRASSLAND THROUGH THE  
 BLADES/STUDENT: BRENT HELLIKER  
 08/19/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* J R EHLERINGER  
*Tech. Officer:* GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40066 UNIVERSITY OF UTAH 8765**  
 SPACE GRANT GEOSPATIAL EXTENSION SPECIALIST PROGRAM  
 03/09/2000 - 03/14/2001 FY00: \$431,250 Total: \$431,250  
*Prin. Invest.:* D WESTENSKOW  
*Tech. Officer:* GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50088 UNIVERSITY OF UTAH 8766**  
 CARDIOVASCULAR RESPONSE TO GRAVITATIONAL ACCELERAT ENT  
 HYDRAULIC MOCK CIRCULATION SYSTEM  
 09/11/1997 - 06/30/1999 FY00: \$0 Total: \$44,000  
*Prin. Invest.:* K SHARP  
*Tech. Officer:* GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1871 UTAH STATE UNIVERSITY 8767**  
 AN EXPERIMENTAL AND NUMERICAL INVESTIGATION OF TURBULENT  
 VORTEX BREAKDOWN AND AIRCRAFT WAKES  
 10/02/1996 - 03/31/1999 FY00: -\$1 Total: \$99,055  
*Prin. Invest.:* D SPALL  
*Tech. Officer:* LARC/T B GATSKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1999 UTAH STATE UNIVERSITY 8768**  
 EXPERIMENTAL INVESTIGATION OF WINGTIP VORTEX  
 02/03/1998 - 12/02/1999 FY00: -\$1 Total: \$52,000  
*Prin. Invest.:* A E ANDERSON  
*Tech. Officer:* LARC/T B GATSKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 4469 UTAH STATE UNIVERSITY 8769**  
 SATELLITE STUDIES OF STORM TIME MID- AND LOW-LATIT ODYNAMICS  
 05/21/1997 - 03/31/2001 FY00: \$78,200 Total: \$309,200  
*Prin. Invest.:* D G FEJER  
*Tech. Officer:* GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 5046 UTAH STATE UNIVERSITY 8770**  
 A ROCKET INVESTIGATION OF MESOSPHERIC EDDY DIFFU- SION  
 EFFECTS ON AIRGLOW & ODD OXYGEN CHEMISTRY  
 08/03/1995 - 12/31/2000 FY00: \$0 Total: \$271,756  
*Prin. Invest.:* J C ULWICK  
*Tech. Officer:* GSFC/P H PLESS  
 CASE Category: 13 - PHYSICS

**NAG 5 5187 UTAH STATE UNIVERSITY 8771**  
 CODA - COUPLING OF DYNAMICS AND AURORA FUNDING FOR FIRST  
 YEAR OF GRANT  
 03/30/1998 - 03/31/2003 FY00: \$110,800 Total: \$307,840  
*Prin. Invest.:* C M SWENSON, NONE  
*Tech. Officer:* GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5189 UTAH STATE UNIVERSITY 8772**  
 A ROCKET INVESTIGATION OF ELECTRON DENSITY STRUCTURE,  
 E-FIELDS AND AEROSOLS DURING PMSE AND N  
 03/27/1998 - 03/31/2001 FY00: \$91,400 Total: \$419,648  
*Prin. Invest.:* J C ULWICK  
*Tech. Officer:* GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5245 UTAH STATE UNIVERSITY 8773**  
 FIRST YEAR OF A THREE YEAR GRANT NAG5-5245 PI DR. JAMES C.  
 ULWICK  
 03/29/1999 - 03/28/2002 FY00: \$146,300 Total: \$291,181  
*Prin. Invest.:* J C ULWICK  
*Tech. Officer:* GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5258 UTAH STATE UNIVERSITY 8774**  
 FIRST YEAR OF THREE YEAR EFFORT/ ROCKET INVESTIGATION OF WINDS  
 ASSOCIATED W/E-REGION  
 04/11/2000 - 03/23/2003 FY00: \$53,200 Total: \$53,200  
*Prin. Invest.:* C M SWENSON  
*Tech. Officer:* GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5293 UTAH STATE UNIVERSITY 8775**  
 IONOSPHERIC NANOSATELLITE FORMATION (ION-F) IONOSPHERIC NANO-  
 SATELLITE FORMATION (ION-F)  
 05/23/2000 - 05/17/2003 FY00: \$116,400 Total: \$116,400  
*Prin. Invest.:* B G FEJER  
*Tech. Officer:* GSFC/J C BRINTON  
 CASE Category: 13 - PHYSICS

**NAG 5 6596 UTAH STATE UNIVERSITY 8776**  
 ENHANCEMENT OF REMOTE SENSING ANALYSIS CAPABILITIES AT UTAH  
 STATE UNIVERSITY  
 12/06/1997 - 04/30/2000 FY00: \$0 Total: \$397,528  
*Prin. Invest.:* R GILLIES  
*Tech. Officer:* GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6792 UTAH STATE UNIVERSITY 8777**  
 TEMPERATURE-DEPENDENT RATE CONSTANTS FOR NO(V)+O VIBRA-  
 TIONAL ENERGY TRANSFER  
 02/17/1998 - 08/31/2000 FY00: \$0 Total: \$86,140  
*Prin. Invest.:* J A DODD  
*Tech. Officer:* GSFC/M MELLOTT  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7597 UTAH STATE UNIVERSITY 8778**  
 SNOW HYDROLOGY: THE PARAMETERIZATION OF SUBGRID PROCESSES  
 WITHIN A PHYSICALLY BASED SNOW ENERGY  
 07/21/1998 - 07/14/2001 FY00: \$0 Total: \$163,240  
*Prin. Invest.:* D G TARBOTON  
*Tech. Officer:* GSFC/E T ENGMAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

## NASA'S UNIVERSITY PROGRAM

UTAH

**NAG 5 8227** **UTAH STATE UNIVERSITY** **8779**  
 "THE FLOW OF PLASMA IN THE SOLAR TERRESTRIAL ENVIRONMENT".  
 02/24/1999 - 03/31/2001 FY00: \$268,470 Total: \$548,470  
 Prin. Invest.: R W SCHUNK  
 Tech. Officer: GSFC/J M GREBOWSKY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8638** **UTAH STATE UNIVERSITY** **8780**  
 PLASMAPAUSE AND ITS ENVIRONMENT: A PROPOSAL FOR COOPERATIVE STUDIES  
 08/11/1999 - 07/31/2001 FY00: \$22,500 Total: \$46,500  
 Prin. Invest.: B G FEJER  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9290** **UTAH STATE UNIVERSITY** **8781**  
 ION-F: A SPACE-BASED TESTBED FOR DISTRIBUTED FORMATION CONTROL USING THE USAT NANO SATELLITE  
 03/17/2000 - 03/31/2001 FY00: \$47,000 Total: \$47,000  
 Prin. Invest.: R FULLMER  
 Tech. Officer: GSFC/K LUU  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 9 999** **UTAH STATE UNIVERSITY** **8782**  
 CROP OPTIMIZATION AND FAILURE ANALYSIS USING CO<sub>2</sub>  
 04/25/1998 - 04/25/2004 FY00: \$163,212 Total: \$402,321  
 Prin. Invest.: B G BUGBEE, L R JOHNSON  
 Tech. Officer: KSC/R M WHEELER  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NAG 9 1237** **UTAH STATE UNIVERSITY** **8783**  
 CO<sub>2</sub> GAS EXCHANGE TO DETERMINE THE FACTORS CONTROLLING RESPIRATION & CARBON USE IN CROP PLANTS  
 06/16/2000 - 07/01/2001 FY00: \$21,056 Total: \$21,056  
 Prin. Invest.: B BUGBEE  
 Tech. Officer: JSC/D BARTA  
 CASE Category: 55 - AGRICULTURE

**NAS 1 00071** **UTAH STATE UNIVERSITY** **8784**  
 SENSOR MODULE DEVELOPMENT AND SUPPORT FOR GIFTS  
 06/19/2000 - 04/14/2001 FY00: \$4,880,000 Total: \$4,880,000  
 Prin. Invest.: G BINGHAM, W SMITH  
 Tech. Officer: LARC/W A ROETTKER, LARC/J B MILLER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 20467** **UTAH STATE UNIVERSITY** **8785**  
 SOUNDING OF THE ATMOSPHERE USING BROADBAND EMISSION RADIOMETRY (SABER) INSTRUMENT  
 03/28/1995 - 03/31/2001 FY00: \$1,000,811 Total: \$16,931,680  
 Prin. Invest.: J ULWICK, D J BAKER, R ESPLIN  
 Tech. Officer: LARC/M D VANEK, LARC/T C DENKINS  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAS 1 99116** **UTAH STATE UNIVERSITY** **8786**  
 RESEARCH SUPPORT FOR GIFTS PROGRAM  
 05/11/1999 - 09/30/1999 FY00: \$0 Total: \$180,000  
 Prin. Invest.: G E BINGHAM  
 Tech. Officer: LARC/V S PARSONS, LARC/F W HARRISON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 8 97107** **UTAH STATE UNIVERSITY** **8787**  
 REMOTE SENSING AND MODELING OF URBAN LANDCOVER  
 01/29/1997 - 01/28/2001 FY00: \$0 Total: \$135,127  
 Prin. Invest.: R R GILLIES  
 Tech. Officer: MSFC/T MILLER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 8 98221** **UTAH STATE UNIVERSITY** **8788**  
 ELECTRONIC PROPERTIES OF MATERIALS WITH APPLICATION TO SPACE-CRAFT CHARGING  
 06/18/1998 - 06/17/2001 FY00: \$138,313 Total: \$276,534  
 Prin. Invest.: J R DENNISON  
 Tech. Officer: MSFC/S PEARSON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 1 307** **UTAH STATE UNIVERSITY** **8789**  
 IR SOUNDER DATA COMPRESSION ISSUES IN SUPPORT OF AGS GOES ADVANCED IMAGER-SOUNDER  
 07/28/1998 - 06/30/1999 FY00: -\$1 Total: \$72,120  
 Prin. Invest.: G BINGHAM, G E BINGHAM  
 Tech. Officer: LARC/Y S PARSONS, LARC/A M LARAR  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 831** **UTAH STATE UNIVERSITY** **8790**  
 SEED-TO-SEED EXPERIMENT (EXPERIMENTS ON RUSSIAN SPACE STATION MIR)  
 10/26/1993 - 06/30/2000 FY00: \$0 Total: \$3,535,217  
 Prin. Invest.: W F CAMPBELL, G E BINGHAM, D L BUBENHEIM  
 Tech. Officer: ARC/G C JAHNS, ARC/C M WINGET  
 CASE Category: 55 - AGRICULTURE

**NCC 2 5325** **UTAH STATE UNIVERSITY** **8791**  
 MICROBIOLOGICAL SENSING SYSTEM FOR A EUROPA PROBE APPLICATION  
 05/17/1999 - 05/14/2000 FY00: \$0 Total: \$10,000  
 Prin. Invest.: L POWERS, C ESTES, W ELLIS, JR.  
 Tech. Officer: ARC/M T FLYNN  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 5 219** **UTAH STATE UNIVERSITY** **8792**  
 HOLOGRAPHIC LIDAR CONCEPTS AND APPLICATIONS  
 08/19/1997 - 04/14/2001 FY00: \$32,490 Total: \$79,520  
 Prin. Invest.: T D WILKERSON  
 Tech. Officer: GSFC/G SCHWEMMER  
 CASE Category: 11 - ASTRONOMY

**NCC 8 162** **UTAH STATE UNIVERSITY** **8793**  
 ANALYSIS OF SPATIAL AND TEMPORAL VARIABILITY OF THE WARM SEASON LAND SURFACE ENERGY BUDGET  
 11/02/1998 - 10/31/2001 FY00: \$25,370 Total: \$75,115  
 Prin. Invest.: R R GILLIES  
 Tech. Officer: MSFC/W LAPENTA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC13 18** **UTAH STATE UNIVERSITY** **8794**  
 NASA-SPONSORED VISTING INVESTIGATOR PROGRAM AFFILIATE CENTER FOR THE WESTERN UNITED STATES  
 09/12/1996 - 12/31/1999 FY00: \$40,322 Total: \$515,023  
 Prin. Invest.: D BAKER  
 Tech. Officer: SSC/R MCKELLIP  
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

## VERMONT

## NASA'S UNIVERSITY PROGRAM

**NCC13 00005** **UTAH STATE UNIVERSITY** **8795**  
 AFFILIATED RESEARCH CENTER PROGRAM SAME  
 03/06/2000 - 03/05/2001 FY00: \$212,454 Total: \$212,454  
 Prin. Invest.: C HOLLE, D BAKER  
 Tech. Officer: SSC/N SOVIK  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40047** **UTAH STATE UNIVERSITY** **8798**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM  
 02/11/1997 - 01/31/2001 FY00: \$50,000 Total: \$1,354,372  
 Prin. Invest.: D BAKER  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 6 52066** **UTAH STATE UNIVERSITY** **8797**  
 MONITORING OZONE CONCENTRATIONS AND INJURY IN HIGH ELEVATION  
 DOUGLAS FIR NEAR SALT LAKE CITY  
 07/24/1998 - 06/30/2001 FY00: \$0 Total: \$44,000  
 Prin. Invest.: F BAKER  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 6 52085** **UTAH STATE UNIVERSITY** **8798**  
 EXPERIMENTAL STUDY OF THE SECONDARY ELECTRON EMISSION  
 06/22/2000 - 08/31/2003 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J DENNISON  
 Tech. Officer: MSFC/S NASH-STEVENSON  
 CASE Category: 13 - PHYSICS

**NGT10 52609** **UTAH STATE UNIVERSITY** **8799**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 04/18/1996 - 09/30/1999 FY00: \$0 Total: \$69,666  
 Prin. Invest.: D L BISHOP  
 Tech. Officer: KSC/R WHEELER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT10 52617** **UTAH STATE UNIVERSITY** **8800**  
 PLANT RESIDE DEGRADATION PRODUCTS IN REGENERATIVE LIFE  
 SUPPORT SYSTEMS  
 07/14/1998 - 07/30/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: P GROSSEL  
 Tech. Officer: KSC/R WHEELER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

## VERMONT

**NAG 5 6118** **MIDDLEBURY COLLEGE** **8801**  
 CORONAL MASS EJECTIONS AND LARGE-SCALE EVOLUTION O  
 06/06/1997 - 09/14/2000 FY00: \$0 Total: \$87,880  
 Prin. Invest.: P WOLFSON  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8020** **MIDDLEBURY COLLEGE** **8802**  
 SN 1006: PROBING THE SYNCHROTRON ORIGIN OF THE X- RAYS AND  
 MEASURING PROPER MOTIONS \_ADP98  
 01/08/1999 - 12/31/2000 FY00: \$0 Total: \$39,632  
 Prin. Invest.: P WINKLER  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9733** **MIDDLEBURY COLLEGE** **8803**  
 ENERGETICS & INITIATION OF CORONAL MASS EJECTIONS  
 06/30/2000 - 06/30/2001 FY00: \$25,378 Total: \$25,378  
 Prin. Invest.: R WOLFSON  
 Tech. Officer: GSFC/W J WAGNER  
 CASE Category: 13 - PHYSICS

**NAG 3 1936** **UNIVERSITY OF VERMONT** **8804**  
 DECOUPLING THE ROLE OF INERTIA AND GRAVITY ON PARTICLE DISPERSION  
 08/05/1996 - 06/30/2000 FY00: \$0 Total: \$7,321  
 Prin. Invest.: K SQUIRES  
 Tech. Officer: GRC/T K GLASGOW  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 5 5135** **UNIVERSITY OF VERMONT** **8805**  
 EFFECTS OF A SOUNDING ROCKET FLIGHT ON DROSOPHILA- TEST BED  
 FOR MOTILITY & METABOLISM EXPERIMENTS  
 04/14/1997 - 10/13/2000 FY00: \$0 Total: \$34,947  
 Prin. Invest.: T KELLER  
 Tech. Officer: GSFC/W JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 7247** **UNIVERSITY OF VERMONT** **8806**  
 CORE FORMATION UNDER DYNAMIC CONDITIONS: AN EXPERIMENTAL  
 STUDY  
 04/28/1998 - 12/31/2000 FY00: \$0 Total: \$60,000  
 Prin. Invest.: T RUSHMER  
 Tech. Officer: HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9532** **UNIVERSITY OF VERMONT** **8807**  
 CORE FORMATION UNDER DYNAMIC CONDITIONS: SILICATE- METAL  
 DISTRIBUTION WITH DIFFERENTIAL STRESS  
 04/27/2000 - 04/30/2001 FY00: \$20,000 Total: \$20,000  
 Prin. Invest.: T RUSHMER  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1281** **UNIVERSITY OF VERMONT** **8808**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/2000 FY00: \$0 Total: \$55,000  
 Prin. Invest.: G MIRCHANDANI  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAGW 3804** **UNIVERSITY OF VERMONT** **8809**  
 SELF-GENERATED BENDING MOMENTS IN ROOT GRAVITROPIS M  
 05/26/1993 - 03/31/1999 FY00: \$3,483 Total: \$45,444  
 Prin. Invest.: P M UNTILHAC  
 Tech. Officer: HQ/T W HALSTEAD  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)



## NASA'S UNIVERSITY PROGRAM

**NCC 2 5196 UNIVERSITY OF VERMONT 8810**  
 MAPPING NORTHERN ECOSYSTEMS WITH POLDER: APPLICATIONS FOR  
 CIRCUMPOLAR METHANE EXCHANGE  
 12/05/1996 - 12/31/1996 FY00: \$0 Total: \$80,000  
 Prin. Invest.: D P LIVINGSTON, L A MORRISSEY  
 Tech. Officer: ARC/V C VANDERBILT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 5342 UNIVERSITY OF VERMONT 8811**  
 LAND COVER MAPPING IN NORTHERN ECOSYSTEMS USING AD EOS/  
 POLDER  
 08/17/1999 - 04/30/2000 FY00: \$0 Total: \$35,000  
 Prin. Invest.: G P LIVINGSTON, L A MORRISSEY  
 Tech. Officer: ARC/V C VANDERBILT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 5399 UNIVERSITY OF VERMONT 8812**  
 LAND COVER MAPPING IN NORTHERN ECOSYSTEMS USING AD EOS/  
 POLDER  
 09/18/2000 - 07/31/2001 FY00: \$30,000 Total: \$30,000  
 Prin. Invest.: G P LIVINGSTON  
 Tech. Officer: ARC/V C VANDERBILT, ARC/E P CONDON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 394 UNIVERSITY OF VERMONT 8813**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/13/1999 - 07/14/2001 FY00: \$225,000 Total: \$450,000  
 Prin. Invest.: W LAKIN  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 40045 UNIVERSITY OF VERMONT 8814**  
 NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/24/1997 - 02/28/2001 FY00: \$256,250 Total: \$973,750  
 Prin. Invest.: W D LAKIN  
 Tech. Officer: HQ/J DASCH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## VIRGINIA

**NAG 1 2112 CHRISTOPHER NEWPORT UNIVERSITY 8815**  
 TECHNOLOGY DEVELOPMENT, IMPLEMENTATION, AND ASSESSMENT:  
 K-16 PRE-SERVICE, IN-SERVICE, AND DISTANCE  
 09/16/1998 - 07/31/1999 FY00: -\$28,021 Total: \$123,715  
 Prin. Invest.: W B WILLIAMS, JR, L VHALE  
 Tech. Officer: LARC/T E PINELLI, LARC/R A HATHAWAY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2210 CHRISTOPHER NEWPORT UNIVERSITY 8816**  
 TRANSFORMING EDUCATIONAL SOFTWARE: IMPLICATIONS FROM MOTIVATIONAL PSYCHOLOGY  
 07/07/1999 - 05/17/2000 FY00: -\$23,236 Total: \$85  
 Prin. Invest.: P DOMINQUZE  
 Tech. Officer: LARC/D M BUSHNELL  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 1 2219 CHRISTOPHER NEWPORT UNIVERSITY 8817**  
 TECHNOLOGY DEVELOPMENT IMPLEMENTATION, AND ASSESSMENT:  
 K-16 PRE-SERVICE, IN-SERVICE, AND DISTANCE  
 08/20/1999 - 07/31/2002 FY00: \$454,633 Total: \$574,633  
 Prin. Invest.: R CATON  
 Tech. Officer: LARC/T E PINELLI, LARC/R A HATHAWAY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2284 CHRISTOPHER NEWPORT UNIVERSITY 8818**  
 AN EXPERIMENT IN EDUCATIONAL TECHNOLOGY-EVALUATING A CYBER-BASED MODEL FOR LEARNING  
 03/28/2000 - 06/14/2001 FY00: \$88,000 Total: \$88,000  
 Prin. Invest.: L LAMBERT  
 Tech. Officer: LARC/D BUSHNELL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6503 CHRISTOPHER NEWPORT UNIVERSITY 8819**  
 VALIDATION OF MSMT. OF POLLUTION IN THE TROPOSPHERE (MOPITT)  
 EXPERIMENT BY GROUND-BASED INFRARED SO  
 10/29/1997 - 09/30/2001 FY00: \$149,405 Total: \$400,838  
 Prin. Invest.: N POUATCHEV  
 Tech. Officer: GSFC/D STARR  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1292 CHRISTOPHER NEWPORT UNIVERSITY 8820**  
 NASA/UNIV JOINT VENTURE IN SPACE SCIENCE (JOVE) FIRST YEAR FUNDING  
 04/11/1996 - 03/31/2000 FY00: -\$8,469 Total: \$55,679  
 Prin. Invest.: D C ANYIWO  
 Tech. Officer: MSFC/D SIX  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 1 204 CHRISTOPHER NEWPORT UNIVERSITY 8821**  
 APPLICATION OF SPECTROSCOPIC METHODS TO STUDY ATMOSPHERIC TRACE GAS CONSTITUENTS  
 11/23/1994 - 08/31/1999 FY00: -\$4,375 Total: \$354,682  
 Prin. Invest.: A M BUONCRISTIANI  
 Tech. Officer: LARC/G W SACHSE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 1 277 CHRISTOPHER NEWPORT UNIVERSITY 8822**  
 DEV OF A 3-DIMENSIONAL HEAVY ION, CHARGED PARTICLE BOLTZMANN TRANSPORT SOLVER  
 02/13/1998 - 01/31/2001 FY00: \$89,604 Total: \$258,605  
 Prin. Invest.: C K CHANG  
 Tech. Officer: LARC/R C SINGLETERRY, JR., LARC/J W WILSON  
 CASE Category: 13 - PHYSICS

**NCC 1 318 CHRISTOPHER NEWPORT UNIVERSITY 8823**  
 AIRCRAFT AND GROUND-BASED SPECTROSCOPIC MEASUREMENTS OF TROPOSPHERIC CO, CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, AND H<sub>2</sub>O  
 09/18/1998 - 12/10/2000 FY00: \$127,219 Total: \$209,719  
 Prin. Invest.: N POUATCHER, M BUONCRISTIANI  
 Tech. Officer: LARC/G W SOCHSE, LARC/D E HINTON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 435 CHRISTOPHER NEWPORT UNIVERSITY 8824**  
 THE NASA WHY FILES, PROBLEM-BASED LEARNING INTEGRATING BROADCAST VIDEO AND THE INTERNET.  
 09/24/1999 - 09/30/2001 FY00: \$61,437 Total: \$147,937  
 Prin. Invest.: N B FREEMAN  
 Tech. Officer: GSFC/D GABRYS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2077 COLLEGE OF WILLIAM AND MARY 8825**  
 BELL-CURVE BASED EVOLUTIONARY STRATEGIES FOR STRUCTURAL OPTIMIZATION  
 06/08/1998 - 07/31/2000 FY00: \$32,000 Total: \$86,450  
 Prin. Invest.: R K KINCAID  
 Tech. Officer: LARC/J SOBIESKI  
 CASE Category: 41 - AERONAUTICAL ENGR

<p><b>NAG 1 2117</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8826</b>            CYBER TECHNOLOGY FOR MATERIALS AND STRUCTURES IN AERO-            NAUTICS AND AEROSPACE            11/04/1998 - 09/30/1999      FY00: -\$282      Total: \$148,777  <i>Prin. Invest.:</i> D M MANOS, R B PIPES  <i>Tech. Officer:</i> LARC/T L ST. CLAIR, LARC/J HINKLEY            CASE Category: 49 - ENGINEERING, OTHER</p>	<p><b>NCC 1 258</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8834</b>            ROBUST ADAPTIVE DATA ENCODING AND RESTORATION            05/22/1997 - 04/30/2000      FY00: \$0      Total: \$0  <i>Prin. Invest.:</i> S K PARK, Z RAHMAN  <i>Tech. Officer:</i> LARC/F O HUCK, LARC/D J JOBSON            CASE Category: 22 - COMPUTER SCIENCE</p>
<p><b>NAG 1 2168</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8827</b>            AN ADVANCED HIERARCHICAL HYBRID ENVIRONMENT FOR RELIABILITY            AND PERFORMANCE MODELING            03/24/1999 - 02/28/2002      FY00: \$110,404      Total: \$190,404  <i>Prin. Invest.:</i> G CIARDO  <i>Tech. Officer:</i> LARC/P W GOODE            CASE Category: 22 - COMPUTER SCIENCE</p>	<p><b>NCC 1 327</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8835</b>            PREDICTION FOR RADIATION SHIELDING MATERIALS            01/27/1999 - 12/18/2001      FY00: \$98,115      Total: \$194,529  <i>Prin. Invest.:</i> R L KIEFER  <i>Tech. Officer:</i> LARC/S A THIBEAULT            CASE Category: 19 - PHYSICAL SCIENCE, OTHER</p>
<p><b>NAG 1 2271</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8828</b>            A UNIFORM ONTOLOGY FOR SOFTWARE INTERFACES            03/21/2000 - 02/28/2001      FY00: \$44,752      Total: \$44,752  <i>Prin. Invest.:</i> S FEYOCK  <i>Tech. Officer:</i> LARC/P C SCHUTTE/A C TRUJILLO            CASE Category: 29 - MATH/COMPUTER SCI, OTHER</p>	<p><b>NCC 1 356</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8836</b>            CYBER SIMULATION FOR COMPOSITE MAT'L'S &amp; STRUCTURES IN AERO-            NAUTICS AND AEROSPACE            09/28/1999 - 09/30/2002      FY00: \$149,060      Total: \$174,060  <i>Prin. Invest.:</i> D M MANOS, R B PIPES  <i>Tech. Officer:</i> LARC/J H STARNES, JR.            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NAG 1 2314</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8829</b>            PREPARATION AND CHARACTERIZATION OF POLYIMIDE NANOCOMPO-            SITES            06/26/2000 - 06/14/2001      FY00: \$17,495      Total: \$17,495  <i>Prin. Invest.:</i> R A ORWOLL  <i>Tech. Officer:</i> LARC/J W CONNELL, LARC/J G SMITH            CASE Category: 12 - CHEMISTRY</p>	<p><b>NCC 1 390</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8837</b>            HIGH RESOLUTION SPECTROSCOPY TO SUPPORT ATMOS- PHERIC            MEASUREMENTS            03/29/2000 - 03/31/2003      FY00: \$152,500      Total: \$152,500  <i>Prin. Invest.:</i> D C BENNER, M D VENKATARAMAN  <i>Tech. Officer:</i> LARC/M H SMITH/C P RINSLAND            CASE Category: 13 - PHYSICS</p>
<p><b>NAG 1 2320</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8830</b>            BELL-CURVE BASED EVOLUTIONARY STRATEGIES FOR STRUCTURAL            OPTIMIZATION            07/07/2000 - 07/31/2001      FY00: \$16,245      Total: \$16,245  <i>Prin. Invest.:</i> R K KINCAID  <i>Tech. Officer:</i> LARC/J SOBIESKI            CASE Category: 41 - AERONAUTICAL ENGR</p>	<p><b>NGT 1 52127</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8838</b>            GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)            05/22/1996 - 12/31/1999      FY00: \$0      Total: \$66,000  <i>Prin. Invest.:</i> P HINDERS  <i>Tech. Officer:</i> LARC/E I MADARAS            CASE Category: 13 - PHYSICS</p>
<p><b>NAS 1 98039</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8831</b>            SAGE SCIENCE INVESTIGATION            06/30/1998 - 08/31/2000      FY00: \$70,000      Total: \$207,437  <i>Prin. Invest.:</i> D C BENNER  <i>Tech. Officer:</i> LARC/W P CHU            CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NGT 1 52165</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8839</b>            GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) TRANSFER FROM            NASA HQ - NGT-332-251            05/29/1997 - 06/30/1999      FY00: -\$1      Total: \$30,200  <i>Prin. Invest.:</i> S PORK  <i>Tech. Officer:</i> LARC/J R SCHIESS            CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NCC 1 80</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8832</b>            HIGH RESOLUTION SPECTROSCOPY TO SUPPORT ATMOSPHERIC            MEASUREMENTS            07/18/1983 - 03/31/2000      FY00: \$0      Total: \$1,433,634  <i>Prin. Invest.:</i> D C BENNER, M D VENKATARAMAN  <i>Tech. Officer:</i> LARC/M A SMITH, LARC/C P RINSLAND            CASE Category: 13 - PHYSICS</p>	<p><b>NGT 1 52180</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8840</b>            GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)            01/12/1998 - 12/31/2001      FY00: \$22,000      Total: \$66,000  <i>Prin. Invest.:</i> J S BOGHOSIAN  <i>Tech. Officer:</i> LARC/P H JOHNSTON            CASE Category: 13 - PHYSICS</p>
<p><b>NCC 1 239</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8833</b>            THE DEVELOPMENT OF MATERIALS FOR STRUCTURES AND RADIATION            SHIELDING IN SPACE            07/17/1996 - 12/31/2000      FY00: \$0      Total: \$171,358  <i>Prin. Invest.:</i> R L KIEFER, R A ORWOLL  <i>Tech. Officer:</i> LARC/S A THIBEAULT            CASE Category: 12 - CHEMISTRY</p>	<p><b>NGT 1 52195</b>      <b>COLLEGE OF WILLIAM AND MARY</b>      <b>8841</b>            GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP) YEAR ONE            06/26/1998 - 06/30/2000      FY00: \$12,000      Total: \$44,000  <i>Prin. Invest.:</i> A S MINER, G CIARDO  <i>Tech. Officer:</i> LARC/P W GOODE            CASE Category: 22 - COMPUTER SCIENCE</p>

## NASA'S UNIVERSITY PROGRAM

VIRGINIA

**NGT 1 52200 COLLEGE OF WILLIAM AND MARY 8842**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 07/21/1998 - 08/31/2001 FY00: \$22,000 Total: \$54,000  
*Prin. Invest.:* R A ORWOLL  
*Tech. Officer:* LARC/J W CONNELL, LARC/J A HINKLEY  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NGT 1 52203 COLLEGE OF WILLIAM AND MARY 8843**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/04/1998 - 06/23/1999 FY00: -\$1 Total: \$5,843  
*Prin. Invest.:* M HINDERS  
*Tech. Officer:* LARC/T L ST. CLAIR  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NGT 1 52204 COLLEGE OF WILLIAM AND MARY 8844**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/04/1998 - 08/31/2001 FY00: \$23,500 Total: \$67,500  
*Prin. Invest.:* M HINDERS  
*Tech. Officer:* LARC/T E PINELLI  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 1 310 ESTRN VA MED SCHL-ESTRN VA MED AUTHORITY 8845**  
 STRESS COUNTER-RESPONSE TRAINING VIA PHYSIOLOGICAL SELF  
 REGULATIONS DURING FLIGHT SIMULATION  
 07/29/1998 - 06/30/2000 FY00: \$0 Total: \$60,762  
*Prin. Invest.:* O S PALSSON  
*Tech. Officer:* LARC/A T POPE, LARC/P C SCHUTTE  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NAG 1 1929 GEORGE MASON UNIVERSITY 8846**  
 NETWORK COMPUTING IN ENGINEERING DESIGN  
 05/29/1997 - 06/30/1999 FY00: -\$228 Total: \$129,347  
*Prin. Invest.:* T ARCISZEWSKI  
*Tech. Officer:* LARC/J J REHDER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 1 2258 GEORGE MASON UNIVERSITY 8847**  
 INVENTIVE DESIGN: AN EVOLUTIONARY COMPUTATION APPROACH  
 01/05/2000 - 12/31/2000 FY00: \$115,000 Total: \$115,000  
*Prin. Invest.:* T ARCISZEWSKI, D A SCHUM, K DEJONG  
*Tech. Officer:* LARC/J J REHDER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 1 2316 GEORGE MASON UNIVERSITY 8848**  
 MIDDLE ATMOSPHERIC HYDROGEN PHOTOCHEMISTRY  
 06/23/2000 - 06/22/2001 FY00: \$32,000 Total: \$32,000  
*Prin. Invest.:* M SUMMERS  
*Tech. Officer:* LARC/G MADDREA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 2 1289 GEORGE MASON UNIVERSITY 8849**  
 ABATEMENT OF AUTOMATION ERRORS BY TRAINING BASED ON COGNITIVE MODELS  
 02/01/1999 - 09/30/2000 FY00: \$74,885 Total: \$171,637  
*Prin. Invest.:* D B DAVIS, P A IKOMI, R W HOLT  
*Tech. Officer:* ARC/S M CASNER  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NAG 5 4140 GEORGE MASON UNIVERSITY 8850**  
 MULTISENSOR MAPPING OF AFRICAN SETTLEMENTS AND REF  
 04/12/1997 - 06/30/2001 FY00: \$10,934 Total: \$125,771  
*Prin. Invest.:* B HAACK  
*Tech. Officer:* GSFC/R H THOMAS  
*CASE Category:* 79 - SOCIAL SCIENCE, OTHER

**NAG 5 4727 GEORGE MASON UNIVERSITY 8851**  
 SIMULATION STUDIES OF THE POLAR AURORA, PLASMA CON SYSTEMS  
 USING ISTP-GGS DATA  
 06/27/1997 - 06/30/2000 FY00: \$0 Total: \$160,000  
*Prin. Invest.:* D A FEDDER  
*Tech. Officer:* GSFC/J GREBOWSKY  
*CASE Category:* 13 - PHYSICS

**NAG 5 4888 GEORGE MASON UNIVERSITY 8852**  
 SOLVING COMBINATIONAL PROBLEMS ON LOOSELY COUPLED  
 06/26/1997 - 04/30/2000 FY00: \$0 Total: \$125,511  
*Prin. Invest.:* P Y WANG  
*Tech. Officer:* GSFC/J DORLANDL  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 7065 GEORGE MASON UNIVERSITY 8853**  
 INTERPLANETARY DUST DISTRIBUTION AND THE DIRBE DATA  
 03/11/1998 - 03/14/2000 FY00: \$0 Total: \$123,700  
*Prin. Invest.:* L OZNEROY  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7317 GEORGE MASON UNIVERSITY 8854**  
 A THEORETICAL AND OBSERVATIONAL STUDY OF EMISSION FROM BLACK  
 HOLES AT X-RAYS AND GAMMA RAYS  
 04/30/1998 - 06/30/1999 FY00: \$0 Total: \$44,001  
*Prin. Invest.:* L TITARCHUK  
*Tech. Officer:* GSFC/J SWANK  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 7775 GEORGE MASON UNIVERSITY 8855**  
 EFFECTS OF AEROSOLS ON CLOUDS IN THE BIOMASS BURNING  
 01/06/1999 - 04/14/2000 FY00: \$33,855 Total: \$92,830  
*Prin. Invest.:* J RAMAPRASAD  
*Tech. Officer:* GSFC/L REMER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8415 GEORGE MASON UNIVERSITY 8856**  
 RECONFIGURABLE ARCHITECTURES FOR ONBOARD IMAGE PROCESSING  
 03/25/1999 - 03/31/2000 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* T EL-GHAZAWI  
*Tech. Officer:* GSFC/J LEMOIGNE  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 5 8607 GEORGE MASON UNIVERSITY 8857**  
 A PROTOTYPE DATA PYRAMID FOR DATA MINING AND KNOWLEDGE  
 DISCOVERY  
 06/10/1999 - 06/14/2000 FY00: \$0 Total: \$75,000  
*Prin. Invest.:* R YANG  
*Tech. Officer:* GSFC/K MOE  
*CASE Category:* 22 - COMPUTER SCIENCE

<p><b>NAG 5 8834</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8858</b>  THE REDSHIFT DEPENDENCE OF THE INTERACTION- ACTIVITY CONNEC-  TION AMONG ULTRALUMINOUS STARBURST  11/18/1999 - 09/30/2000                      FY00: \$29,111                      Total: \$29,111  Prin. Invest.: J WALLIN  Tech. Officer: GSFC/D K WEST  CASE Category: 11 - ASTRONOMY</p>	<p><b>NCC 5 267</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8866</b>  TO SUPPORT THE FLAT-SAT VISION PROJECT  01/28/1998 - 02/14/2001                      FY00: \$0                      Total: \$80,000  Prin. Invest.: H GOMAA  Tech. Officer: GSFC/T AMES  CASE Category: 22 - COMPUTER SCIENCE</p>
<p><b>NAG 5 9035</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8859</b>  ANALYSES OF OCEANIC MONTHLY RAIN RATE PARAMETERS DERIVED  FROM TMI  02/09/2000 - 02/14/2001                      FY00: \$50,232                      Total: \$50,232  Prin. Invest.: L S CHIU  Tech. Officer: GSFC/A T CHANG  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NCC 5 306</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8867</b>  SEASONAL &amp; INTERANNUAL EARTH SCIENCE INFORMANTION PARTNER  (SIESIP)  04/09/1998 - 02/28/2001                      FY00: \$635,000                      Total: \$2,235,000  Prin. Invest.: M KAFATOS  Tech. Officer: GSFC/M MAIDEN  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 5 9636</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8860</b>  CONTINUOUS PRECIPITATION ESTIMATES FROM TRMM &amp; MESOSCALE  MODELS  05/25/2000 - 05/31/2001                      FY00: \$15,000                      Total: \$15,000  Prin. Invest.: L CHIU  Tech. Officer: GSFC/J A WEINMAN  CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NCC 5 360</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8868</b>  CONTINUING CAREER PROGRAM (CCP)  08/26/1998 - 08/31/2001                      FY00: \$394,895                      Total: \$780,903  Prin. Invest.: R R STOUGH  Tech. Officer: GSFC/A E TAYLOR  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 5 9669</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8861</b>  HYDROGEN CHEMISTRY IN THE POLAR MESOSPHERE  06/22/2000 - 06/30/2001                      FY00: \$92,200                      Total: \$92,200  Prin. Invest.: M E SUMMERS  Tech. Officer: GSFC/M MELLOTT  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>	<p><b>NAG 1 1185</b>                      <b>HAMPTON UNIVERSITY</b>                      <b>8869</b>  THE AMERICAN INDIAN EDUCATION OPPORTUNITIES PROGRAM  09/13/1990 - 09/30/1998                      FY00: \$0                      Total: \$0  Prin. Invest.: P F MOLIN, D D VENABLE  Tech. Officer: LARC/S E MASSENBERG  CASE Category: 99 - MULTI INTERDISCIPL, OTHER</p>
<p><b>NAG 5 9781</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8862</b>  PROBLEM SOLVING ON LOOSELY COUPLED SYSTEM  07/07/2000 - 07/14/2001                      FY00: \$32,000                      Total: \$32,000  Prin. Invest.: P Y WANG  Tech. Officer: GSFC/J DORBAND  CASE Category: 22 - COMPUTER SCIENCE</p>	<p><b>NAG 1 1636</b>                      <b>HAMPTON UNIVERSITY</b>                      <b>8870</b>  INVESTIGATION OF NOX REMOVAL FROM SMALL ENGINE EXHAUST  08/03/1994 - 07/31/1999                      FY00: -\$1,120                      Total: \$220,136  Prin. Invest.: J F AKYURTLU  Tech. Officer: LARC/G B NORTHAM  CASE Category: 43 - CHEMICAL ENGR</p>
<p><b>NAG 5 10038</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8863</b>  LOW-LUMINOSITY NUCLEAR ACCRETION IN NGC 4261 &amp; NGC 6251  09/27/2000 - 09/30/2001                      FY00: \$22,518                      Total: \$22,518  Prin. Invest.: R M SAMBRUNA  Tech. Officer: GSFC/R MUSHOTZKY  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 1 1742</b>                      <b>HAMPTON UNIVERSITY</b>                      <b>8871</b>  ELECTORRHEOLOGICAL FLUIDS - AEROSPACE APPLICATIONS NLPN  95-104  07/31/1995 - 01/31/1999                      FY00: -\$2,740                      Total: \$305,575  Prin. Invest.: A C SMITH, D S PARMAR  Tech. Officer: LARC/G T KIMBERLY, LARC/H K HOLMES  CASE Category: 13 - PHYSICS</p>
<p><b>NCC 5 143</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8864</b>  EARTH SYSTEM SCIENCE DATA SUPPORT  07/15/1996 - 06/14/2001                      FY00: \$1,729,500                      Total: \$5,630,857  Prin. Invest.: M KAFATOS  Tech. Officer: GSFC/S KEMPLER  CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 1 1834</b>                      <b>HAMPTON UNIVERSITY</b>                      <b>8872</b>  HAMPTON UNIVERSITY AEROSCIENCE CENTER  05/03/1996 - 12/31/1999                      FY00: \$0                      Total: \$0  Prin. Invest.: C REAVES  Tech. Officer: LARC/S E MASSENBERG  CASE Category: 41 - AERONAUTICAL ENGR</p>
<p><b>NCC 5 245</b>                      <b>GEORGE MASON UNIVERSITY</b>                      <b>8865</b>  DEVELOPMENT OF POSEIDON OCEAN MODEL FOR NSIPP  10/08/1997 - 10/14/2000                      FY00: \$0                      Total: \$207,850  Prin. Invest.: P SCHOPF  Tech. Officer: GSFC/M RIENECKER  CASE Category: 33 - OCEANOGRAPHY</p>	<p><b>NAG 1 1835</b>                      <b>HAMPTON UNIVERSITY</b>                      <b>8873</b>  START UP RESEARCH EFFORT IN FLUID MECHANICS MY 1/3  05/02/1996 - 12/31/1999                      FY00: -\$24,270                      Total: \$200,730  Prin. Invest.: M H MORGAN, A G MIAMRE  Tech. Officer: LARC/J W POSEY, LARC/J C HARDIN  CASE Category: 41 - AERONAUTICAL ENGR</p>

**NAG 1 1936** **HAMPTON UNIVERSITY** **8874**  
 MIXING, NOISE, AND THRUST BENEFITS USING CORRUGATED DESIGNS  
 05/27/1997 - 06/05/2000 FY00: -\$10,000 Total: \$350,000  
 Prin. Invest.: M H MORGAN, M M GIUNSKY  
 Tech. Officer: LARC/J W POSEY, LARC/M K PONTON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1941** **HAMPTON UNIVERSITY** **8875**  
 CHARACTERIZATION OF MOLECULAR INTERACTIONS AT METAL/POLYMER  
 COMPOSITE SURFACES AND INTERPHASES  
 05/30/1997 - 12/31/2000 FY00: \$50,000 Total: \$300,000  
 Prin. Invest.: J C WILLIAMS  
 Tech. Officer: LARC/T L ST. CLAIR, LARC/S H LOWTHER  
 CASE Category: 12 - CHEMISTRY

**NAG 1 1947** **HAMPTON UNIVERSITY** **8876**  
 CONCEPTS FOR ATMOSPHERIC SCIENCE EDUCATION (CASE)  
 06/17/1997 - 06/30/2000 FY00: \$0 Total: \$361,950  
 Prin. Invest.: M P MCCORMICK, J M RUSSELL, III  
 Tech. Officer: LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1949** **HAMPTON UNIVERSITY** **8877**  
 DEVELOPMENT OF A PORTABLE, GROUND BASED OZONE LIDAR  
 INSTRUMENT FOR TROPOSPHERIC OZONE  
 06/20/1997 - 06/30/1999 FY00: -\$1,280 Total: \$358,720  
 Prin. Invest.: T H CHYBA, T ZENKER  
 Tech. Officer: LARC/J FISHMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1963** **HAMPTON UNIVERSITY** **8878**  
 INVESTIGATIONS OF TROPICAL ATMOSPHERIC RADIATIVE ENERGY  
 BALANCE USING CERS AND TRMM DATA  
 09/03/1997 - 02/28/2001 FY00: \$307,670 Total: \$1,029,822  
 Prin. Invest.: B LIN  
 Tech. Officer: LARC/B A WIENCKI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2017** **HAMPTON UNIVERSITY** **8879**  
 1998 LANGLEY AEROSPACE RESEARCH SUMMER SCHOLARS PROGRAM  
 (LARSS)  
 04/15/1998 - 03/02/1999 FY00: -\$6,700 Total: \$686,448  
 Prin. Invest.: C W LOWE  
 Tech. Officer: LARC/R A HATHAWAY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2135** **HAMPTON UNIVERSITY** **8880**  
 STUDY OF CONTRAILS AND ATMOSPHERIC RADIATION MEAS (ARM) DATA  
 PROJECT DEVELOPMENT  
 01/19/1999 - 01/18/2002 FY00: \$94,152 Total: \$170,882  
 Prin. Invest.: M P MCCORMICK, J M RUSSELL, III  
 Tech. Officer: LARC/P MINNIS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2159** **HAMPTON UNIVERSITY** **8881**  
 1999 LANGLEY AEROSCIENCE RESEARCH SUMMER SCHOLARS PROGRAM  
 (LARSS)  
 03/15/1999 - 07/18/2000 FY00: -\$20,042 Total: \$737,469  
 Prin. Invest.: C LOWE  
 Tech. Officer: LARC/P A HATHAWAY, LARC/E J PRIOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2170** **HAMPTON UNIVERSITY** **8882**  
 DEVELOPMENT AND COMPARISON OF GLOBAL AEROSOL, WATER VAPOR,  
 AND OZONE CLIMATOLOGIES USING SAGE II  
 03/25/1999 - 02/28/2002 FY00: \$75,000 Total: \$150,000  
 Prin. Invest.: M P MCCORMICK  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2206** **HAMPTON UNIVERSITY** **8883**  
 TOP-OF-ATMOSPHERE CLEAR-SKY BROADBAND RADIATIVE FLUX AND  
 DIRECT AEROSOL RADIATIVE FORCING FROM  
 06/21/1999 - 06/30/2002 FY00: \$80,907 Total: \$107,007  
 Prin. Invest.: N G LOEB, B LIN, J HU  
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2207** **HAMPTON UNIVERSITY** **8884**  
 OPENING NATIVE AMERICAN CAREER PATHS IN MATHEMATIC SCIENCE,  
 AND TECHNOLOGY  
 07/01/1999 - 06/30/2000 FY00: \$22,000 Total: \$75,000  
 Prin. Invest.: C LOWE  
 Tech. Officer: LARC/R HATHAWAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2223** **HAMPTON UNIVERSITY** **8885**  
 EVALUATION OF THE EFFECT OF WATER VAPOR ON THE PERFORMANCE  
 OF NASA'S NMRO CATALYST FOR CARBON  
 08/31/1999 - 07/31/2001 FY00: \$25,000 Total: \$125,000  
 Prin. Invest.: A AKYURTLU  
 Tech. Officer: LARC/D R SCHRYER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2224** **HAMPTON UNIVERSITY** **8886**  
 STUDENT FIELD TESTING OF THE HAMPTON UNIVERSITY COMPACT  
 OZONE LIDAR SYSTEM CERTIFICATION OF  
 08/24/1999 - 07/31/2001 FY00: \$25,000 Total: \$125,000  
 Prin. Invest.: T H CHYBA  
 Tech. Officer: LARC/J FISHMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2256** **HAMPTON UNIVERSITY** **8887**  
 HAMPTON UNIVERSITY-COLLEGE OF CONTINUING EDUCATION AEROSCI-  
 ENCE CENTER  
 12/22/1999 - 11/30/2000 FY00: \$150,000 Total: \$150,000  
 Prin. Invest.: C REEVES  
 Tech. Officer: LARC/S MOSSENBERG  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2318** **HAMPTON UNIVERSITY** **8888**  
 THEORET & OBSERVAT'L DETERM OF GLOBAL & REGIONAL RADIATION  
 BUDG, FORC'G & FEEDBACK TOP-OF-ATMOSPHERE  
 07/18/2000 - 10/31/2003 FY00: \$61,100 Total: \$61,100  
 Prin. Invest.: N G LOEB  
 Tech. Officer: LARC/G G GIBSON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2331** **HAMPTON UNIVERSITY** **8889**  
 THE AMERICAN INDIAN EDUCATIONAL OPPORTUNITIES PROGRAM  
 09/29/2000 - 11/30/2000 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: R SCHWAN  
 Tech. Officer: LARC/R A HATHAWAY  
 CASE Category: 79 - SOCIAL SCIENCE, OTHER

**NAG 2 1331** **HAMPTON UNIVERSITY** **8890**  
 APPLIED CFD RESEARCH & TRAINING  
 06/21/1999 - 06/14/2001 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: H HU  
 Tech. Officer: ARC/R C STRAWN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 1792** **HAMPTON UNIVERSITY** **8891**  
 PARALLELIZATION OF ROCKET ENGINE SIMULATOR SOFTWARE  
 10/19/1995 - 10/18/1999 FY00: \$0 Total: \$293,050  
 Prin. Invest.: D CEZZAR  
 Tech. Officer: GRC/D N NOGA, GRC/K J DAVIDIAN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2034** **HAMPTON UNIVERSITY** **8892**  
 HIGH TEMPERATURE FIBER OPTICS SENSOR SYSTEM FOR PLUME  
 IMPINGEMENT STUDIES  
 04/09/1997 - 11/22/1999 FY00: \$0 Total: \$150,859  
 Prin. Invest.: D R LYONS  
 Tech. Officer: GRC/S R BULLOCK  
 CASE Category: 13 - PHYSICS

**NAG 3 2059** **HAMPTON UNIVERSITY** **8893**  
 OPTICAL STRAIN GAUGES FOR PLUME IMPINGEMENT STUDIES  
 07/10/1997 - 06/24/1999 FY00: \$0 Total: \$398,128  
 Prin. Invest.: D R LYONS  
 Tech. Officer: GRC/E J PENCIL  
 CASE Category: 13 - PHYSICS

**NAG 3 2189** **HAMPTON UNIVERSITY** **8894**  
 OPTICAL ELECTRONIC BRAGG REFLECTION SENSOR SYSTEM WITH  
 HYDRODYNAMIC FLOW APPLICATIONS  
 08/07/1998 - 05/30/2002 FY00: \$99,998 Total: \$344,999  
 Prin. Invest.: D R LYONS  
 Tech. Officer: GRC/D GRIFFIN  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2249** **HAMPTON UNIVERSITY** **8895**  
 ADVANCED METHODS FOR AIRCRAFT ENGINE THRUST AND NOISE BENEFITS. NOZZLE-INLET FLOW ANALYSIS  
 04/01/1999 - 01/26/2002 FY00: \$100,000 Total: \$200,000  
 Prin. Invest.: M H MORGAN  
 Tech. Officer: GRC/I BLANKSON  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2422** **HAMPTON UNIVERSITY** **8896**  
 NUMERICAL SIMULATION OF ONE-AND TWO-PHASE FLOWS IN PROPULSION SYSTEMS  
 05/31/2000 - 12/31/2002 FY00: \$100,000 Total: \$100,000  
 Prin. Invest.: M GILLINSKY  
 Tech. Officer: GRC/I M BLANKSON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 5299** **HAMPTON UNIVERSITY** **8897**  
 DYNAMICAL INTERPRETATION OF AEROSOL INFLUENCES ON DOBSON SPECTROPHOTOMETER  
 07/18/2000 - 02/28/2001 FY00: \$37,438 Total: \$37,438  
 Prin. Invest.: D P MCCORMICK  
 Tech. Officer: GSFC/F SCHMIDLIN  
 CASE Category: 12 - CHEMISTRY

**NAG 5 6296** **HAMPTON UNIVERSITY** **8898**  
 HAMPTON UNIVERSITY - OPTICAL RADIATION IN ATMOSPHERE  
 09/19/1997 - 11/30/2000 FY00: \$74,998 Total: \$224,973  
 Prin. Invest.: D A TEMPLE  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6938** **HAMPTON UNIVERSITY** **8899**  
 MATHEMATICS, SCIENCE, ENGINEERING AND TECHNOLOGY PROGRAM  
 02/06/1998 - 01/31/1999 FY00: \$0 Total: \$100,000  
 Prin. Invest.: M MORGAN  
 Tech. Officer: GSFC/M STOUTSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7001** **HAMPTON UNIVERSITY** **8900**  
 STUDIES OF THE CLIMATOLOGY, LONG-TERM TRENDS, AND QUASI-BIENNIAL OSCILLATION OF CHEMICAL TRACERS IN  
 04/07/1998 - 03/31/2001 FY00: \$49,203 Total: \$151,599  
 Prin. Invest.: D M RUSSELL, 111 Prin. Invest.: NONE  
 Tech. Officer: GSFC/C JACKMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8648** **HAMPTON UNIVERSITY** **8901**  
 "PROPOSAL FOR MEMBERSHIP TO THE AEROSOL RADIATIVE FORCING SCIENCE TEAM"  
 08/16/1999 - 01/31/2001 FY00: \$14,910 Total: \$29,820  
 Prin. Invest.: M MCCORMICK  
 Tech. Officer: GSFC/M I MISHCHENKO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9156** **HAMPTON UNIVERSITY** **8902**  
 PROGRAM FOR IMPROVING SUCCESS IN SCIENCE, ENGINEERING, AND MATHEMATICS (PRISEM)  
 03/03/2000 - 02/28/2003 FY00: \$98,377 Total: \$98,377  
 Prin. Invest.: C RANKINS  
 Tech. Officer: GSFC/M STOUTSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9171** **HAMPTON UNIVERSITY** **8903**  
 STUDIES OF POLAR MESOSPHERIC CLOUDS FROM OBSERVATIONS BY THE STUDENT NITRIC OXIDE EXPLORER  
 03/08/2000 - 02/28/2001 FY00: \$72,000 Total: \$72,000  
 Prin. Invest.: S M BAILEY  
 Tech. Officer: GSFC/M MELLOTT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 10015** **HAMPTON UNIVERSITY** **8904**  
 HAMPTON UNIVERSITY COLLEGE OF CONTINUING EDUCATION AEROSPACE CENTER  
 09/21/2000 - 09/30/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: C L REAVES  
 Tech. Officer: GSFC/C S PERSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG13 44** **HAMPTON UNIVERSITY** **8905**  
 INFORMATION CONTENT IMPROVEMENT BY HYPER SPECTRAL IMAGER  
 08/01/1995 - 01/08/1999 FY00: -\$7,580 Total: \$280,176  
 Prin. Invest.: B A ADESENYA  
 Tech. Officer: SSC/A JOYCE  
 CASE Category: 33 - OCEANOGRAPHY

## NASA'S UNIVERSITY PROGRAM

VIRGINIA

**NAS 1 20444** **HAMPTON UNIVERSITY** **8906**  
 EDUCATIONAL OUTREACH FOR NASA SCIENCES AND APPLICATIONS  
 12/19/1994 - 01/31/2000 FY00: \$139,419 Total: \$3,991,815  
*Prin. Invest.:* W TINSLEY  
*Tech. Officer:* LARC/L B GARRETT  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAS 1 97042** **HAMPTON UNIVERSITY** **8907**  
 PRINCIPAL INVESTIGATOR SERVICES TO SUPPORT SAGE II AND III, SABER, HALOE, LITE AND LIDAR PROGRAMS.  
 09/29/1997 - 09/30/2002 FY00: \$234,007 Total: \$896,432  
*Prin. Invest.:* P MCCORMICK  
*Tech. Officer:* LARC/R L DUNCAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 1 99108** **HAMPTON UNIVERSITY** **8908**  
 PICASSO-CENA INTERNATIONAL SCIENCE ADVISORY PANEL, SCIENCE ACTIVITIES, ALGORITHM IMPLEMENTATION & OU  
 02/01/2000 - 01/31/2002 FY00: \$949,750 Total: \$949,750  
*Prin. Invest.:* M P MCCORMICK, A H OMAR  
*Tech. Officer:* LARC/G G GIBSON  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 231** **HAMPTON UNIVERSITY** **8909**  
 ADVANCED ELECTROMAGNETIC INTERFERENCE AND RADIATION RESEARCH  
 06/13/1996 - 12/31/1999 FY00: -\$784 Total: \$340,270  
*Prin. Invest.:* A O OLADIPUPO, C J REDDY  
*Tech. Officer:* LARC/F D BECK, LARC/C R COCKRELL  
*CASE Category:* 45 - ELECTRICAL ENGR

**NCC 1 251** **HAMPTON UNIVERSITY** **8910**  
 RESEARCH CENTER FOR OPTICAL PHYSICS MY 1/5  
 03/18/1997 - 12/31/2000 FY00: \$1,000,000 Total: \$4,000,000  
*Prin. Invest.:* D A TEMPLE  
*Tech. Officer:* LARC/R HATHAWAY  
*CASE Category:* 13 - PHYSICS

**NCC 1 319** **HAMPTON UNIVERSITY** **8911**  
 IN-SITU OZONE (DC-8 & P-3B A/C) & FINE AEROSOL MEAS (DC-8 A/C) SUPPORT GLOBAL TROPOSPHERIC EXPERIMENT  
 09/09/1998 - 12/31/1999 FY00: \$0 Total: \$0  
*Prin. Invest.:* M OWENS  
*Tech. Officer:* LARC/J L RAPER, LARC/R J BENDURA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 321** **HAMPTON UNIVERSITY** **8912**  
 INTERPRETATION OF LIDAR AND SATELLITE DATA SETS USING A GLOBAL PHOTOCHEMICAL MODEL (OLD NCC-1-214)  
 10/16/1998 - 08/15/1999 FY00: \$0 Total: \$0  
*Prin. Invest.:* T J ZENKER, T H CHYBA  
*Tech. Officer:* LARC/J FISHMAN, LARC/G W SACHSE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 358** **HAMPTON UNIVERSITY** **8913**  
 NASA-ASEE SUMMER FACULTY FELLOWSHIP PROGRAM 2000  
 03/27/2000 - 12/31/2000 FY00: \$584,055 Total: \$584,055  
*Prin. Invest.:* D DEPRIEST  
*Tech. Officer:* LARC/R HATHAWAY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 1 366** **HAMPTON UNIVERSITY** **8914**  
 DEVELOPMENT OF ADVANCED AIRCRAFT ANTENNA DESIGN AND ANALYSIS TECHNIQUES  
 01/11/2000 - 12/31/2002 FY00: \$77,033 Total: \$77,033  
*Prin. Invest.:* A O OLADIPUPO, C J REDDY  
*Tech. Officer:* LARC/F B BECK, LARC/M C BAILEY  
*CASE Category:* 45 - ELECTRICAL ENGR

**NCC 1 379** **HAMPTON UNIVERSITY** **8915**  
 2000 LANGLEY AEROSCIENCE RESEARCH SUMMER SCHOLARS PROGRAM (LARSS)  
 03/02/2000 - 03/02/2001 FY00: \$811,153 Total: \$811,153  
*Prin. Invest.:* C LOWE  
*Tech. Officer:* LARC/R A HATHAWAY, LARC/C T PRIOR  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 348** **HAMPTON UNIVERSITY** **8916**  
 CENTER FOR LIDAR AND ATMOSPHERIC SCIENCES STUDENTS  
 06/29/1998 - 06/30/2003 FY00: \$496,422 Total: \$1,495,533  
*Prin. Invest.:* D A TEMPLE  
*Tech. Officer:* HQ/B WHITE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52181** **HAMPTON UNIVERSITY** **8917**  
 1998 NASA ASEE SUMMER FACULTY RESEARCH PROGRAM  
 03/03/1998 - 12/31/1999 FY00: -\$19,739 Total: \$553,261  
*Prin. Invest.:* W P MARABLE  
*Tech. Officer:* LARC/R HATHAWAY, LARC/E PRIOR  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52207** **HAMPTON UNIVERSITY** **8918**  
 AMERICAN INDIAN EDUCATIONAL OPPORTUNITIES PROGRAM  
 03/09/1999 - 12/31/1999 FY00: \$0 Total: \$109,000  
*Prin. Invest.:* P F MOLINA  
*Tech. Officer:* LARC/R A HATHAWAY, LARC/E PRIOR  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 2 52261** **HAMPTON UNIVERSITY** **8919**  
 DEVELOPMENT OF AN ASTROBIOLOGY EDUCATION CURRICULUM AT HAMPTON UNIVERSITY  
 12/06/1999 - 12/31/2000 FY00: \$96,877 Total: \$96,877  
*Prin. Invest.:* B FAISON  
*Tech. Officer:* ARC/D DESMARAIS  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NGT 3 52354** **HAMPTON UNIVERSITY** **8920**  
 UV INDUCED DENSIFICATION AND ABLATION DURING THE FORMATION OF BRAGG GRATINGS IN GE-DOPED SiO2 PREFORM  
 06/25/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* D R LYONS  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 13 - PHYSICS

**NAG 1 2033** **JAMES MADISON UNIVERSITY** **8921**  
 LARGE-EDDY SIMULATION FOR AEROACOUSTICS APPLICATIONS  
 03/17/1998 - 10/05/1999 FY00: -\$84 Total: \$26,276  
*Prin. Invest.:* C D PRUETT, J S SOCHACKI  
*Tech. Officer:* LARC/M H CARPENTER  
*CASE Category:* 21 - MATHEMATICS

**NAG 1 2155 JAMES MADISON UNIVERSITY 8922**  
 CHAOS AND THERMAL SCIENCES LABORATORY (CATS LAB) MY 1/3  
 03/05/1999 - 12/31/2001 FY00: \$0 Total: \$89,892  
 Prin. Invest.: A A TEATE  
 Tech. Officer: LARC/R A HATHAWAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2186 JAMES MADISON UNIVERSITY 8923**  
 INFRARED DEVELOPMENT AND TESTING LABORATORY WITH DEVELOPMENT OF ATMOSPHERIC CO IMAGING INSTRUMENT  
 04/29/1999 - 02/28/2002 FY00: \$91,800 Total: \$141,800  
 Prin. Invest.: J J MILES  
 Tech. Officer: LARC/A D LITTLE  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 6166 JAMES MADISON UNIVERSITY 8924**  
 COLLEGE OF INTEGRATED SCIENCE & TECHNOLOGY (CISAT) CONDUCT PRE-SERVICE TEACHER ENHANCEMENT WORKSHOP.  
 08/01/1997 - 07/31/2000 FY00: \$0 Total: \$60,000  
 Prin. Invest.: J BARNES  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 1432 NORFOLK STATE UNIVERSITY 8925**  
 DEVELOPMENT OF LABORATORY EXPERIMENTS FOR ENGINEERING MATERIALS, SCIENCE, AND TECHNOLOGY  
 04/23/1992 - 10/31/1998 FY00: -\$11,317 Total: \$153,179  
 Prin. Invest.: J A JACOBS  
 Tech. Officer: LARC/J E GARDNER, LARC/R L YANG  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 1 1937 NORFOLK STATE UNIVERSITY 8926**  
 THE SCIENCE AND MATH FOR EVERYONE PROJECT MY 1/2  
 05/28/1997 - 08/30/1999 FY00: -\$4,577 Total: \$355,423  
 Prin. Invest.: M NEWSOME  
 Tech. Officer: LARC/M CANRIGHT, LARC/E PRIOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1944 NORFOLK STATE UNIVERSITY 8927**  
 VISUALIZATION OF ATMOSPHERIC WATER VAPOR DATA FOR SAGE  
 06/09/1997 - 12/29/2000 FY00: \$44,143 Total: \$282,643  
 Prin. Invest.: M KUNG  
 Tech. Officer: LARC/W P CHU  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1948 NORFOLK STATE UNIVERSITY 8928**  
 RURAL OUTREACH PROGRAM  
 06/19/1997 - 06/30/2000 FY00: \$0 Total: \$360,000  
 Prin. Invest.: C COLEMAN  
 Tech. Officer: LARC/S CANRIGHT, LARC/E PRIOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1967 NORFOLK STATE UNIVERSITY 8929**  
 NASA SDB DATA BASE DEVELOPMENT  
 08/15/1997 - 09/14/1999 FY00: -\$1,279 Total: \$39,721  
 Prin. Invest.: D JONES, R ASKEW  
 Tech. Officer: LARC/R HATHAWAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2066 NORFOLK STATE UNIVERSITY 8930**  
 PRE-SERVICE TEACHER EDUCATION CONFERENCE  
 05/01/1998 - 05/31/1999 FY00: -\$3,261 Total: \$221,773  
 Prin. Invest.: E P WITTY  
 Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2098 NORFOLK STATE UNIVERSITY 8931**  
 PROVIDING A CONTINUUM OF SUPPORT FOR MINORITY STUDENTS AND TEACHERS IN HAMPTON ROADS, VA  
 07/29/1998 - 04/30/2000 FY00: -\$71 Total: \$95,929  
 Prin. Invest.: C COLEMAN  
 Tech. Officer: LARC/M D CANRIGHT, LARC/E PRIOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2125 NORFOLK STATE UNIVERSITY 8932**  
 TECHNICAL EDUCATION OUTREACH MATERIALS SCIENCE AND TECHNOLOGY BASED ON NASAS MATERIALS RESEARCH  
 01/12/1999 - 12/31/2001 FY00: \$25,000 Total: \$75,000  
 Prin. Invest.: J JACOBS, S R CHAUDHURY  
 Tech. Officer: LARC/E T PRIOR, LARC/R HATHAWAY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 1 2172 NORFOLK STATE UNIVERSITY 8933**  
 DEVELOPMENT OF SOLID-STATE LASER MATERIALS FOR APPLICATION IN LASERS FOR ATMOSPHERIC OZONE & WATER  
 03/30/1999 - 12/31/2001 FY00: \$50,000 Total: \$100,000  
 Prin. Invest.: M NOGINOV, G LOUTTS  
 Tech. Officer: LARC/N P BARNES, LARC/J C BARNES  
 CASE Category: 13 - PHYSICS

**NAG 1 2226 NORFOLK STATE UNIVERSITY 8934**  
 PORTSMOUTH ATMOSPHERIC SCIENCE SCHOOL PROJECT (PASS)  
 08/24/1999 - 07/31/2001 FY00: \$99,728 Total: \$199,728  
 Prin. Invest.: C COLEMAN  
 Tech. Officer: LARC/R A HATHAWAY  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2228 NORFOLK STATE UNIVERSITY 8935**  
 NONSELECTIVE ROOMTEMPERATURE MICROBOLOMETERS BASED ON CMB THIN FILMS  
 08/30/1999 - 07/31/2001 FY00: \$25,000 Total: \$123,108  
 Prin. Invest.: E S GILLMAN  
 Tech. Officer: LARC/J C BARNES  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2230 NORFOLK STATE UNIVERSITY 8936**  
 PRE-SERVICE TEACHER CONFERENCE MY 1/2  
 09/03/1999 - 07/31/2001 FY00: \$125,000 Total: \$225,000  
 Prin. Invest.: P TUCKER-HOGAN  
 Tech. Officer: LARC/R A HATHAWAY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 3 2289 NORFOLK STATE UNIVERSITY 8937**  
 NOVEL HIGH EFFICIENT ORGANIC PHOTOVOLTAIC MATERIALS  
 08/30/1999 - 07/21/2001 FY00: \$151,237 Total: \$299,816  
 Prin. Invest.: S SUN  
 Tech. Officer: GRC/A F HEPP  
 CASE Category: 12 - CHEMISTRY



**NAG 4 185 NORFOLK STATE UNIVERSITY 8938**  
 VARIATIONAL METHOD IN DESIGN OPTIMIZATION  
 02/26/1999 - 02/26/2002 FY00: \$100,000 Total: \$201,619  
 Prin. Invest.: D HULBERT  
 Tech. Officer: DFRC/K GUPTA, DFRC/E COX  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 8298 NORFOLK STATE UNIVERSITY 8939**  
 NORFOLK STATE UNIVERSITY RESEARCH EXPERIENCE IN EA  
 09/15/1997 - 07/31/2000 FY00: \$0 Total: \$147,662  
 Prin. Invest.: W J RODRIGUEZ  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8541 NORFOLK STATE UNIVERSITY 8940**  
 SUMMER WORKSHOP PROGRAM TO PROVIDE EMERGING EDUCAT ORS  
 W/THE FAMILIARITY & KNOWLEDGE TO UTILIZE IN C  
 05/12/1999 - 05/14/2000 FY00: \$0 Total: \$19,949  
 Prin. Invest.: S CHAUDHURY  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8653 NORFOLK STATE UNIVERSITY 8941**  
 DESIGN AND PERFORMANCE TESTS OF ULTRA-COMPACT CALO RIME-  
 TERS FOR HIGH ENERGY ASTROPHYSICS  
 08/19/1999 - 07/31/2001 FY00: \$99,578 Total: \$199,310  
 Prin. Invest.: C W SALGADO  
 Tech. Officer: GSFC/R E STREITMATTER  
 CASE Category: 13 - PHYSICS

**NAG 5 9257 NORFOLK STATE UNIVERSITY 8942**  
 BRINGING EDUCATION & SCIENCE TOGETHER FOR SYSTEMIC TRAINING &  
 EMPOWERMENT OF PRESERVICE TEACHERS  
 03/15/2000 - 02/28/2001 FY00: \$180,145 Total: \$180,145  
 Prin. Invest.: G GOLEMBIEWSKI  
 Tech. Officer: GSFC/B L WHITE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9374 NORFOLK STATE UNIVERSITY 8943**  
 SCENARIO BASED LEARNING: INQUIRY FOR A DIGITAL EARTH  
 04/05/2000 - 03/31/2001 FY00: \$94,909 Total: \$94,909  
 Prin. Invest.: W J RODRIGUEZ  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 1 280 NORFOLK STATE UNIVERSITY 8944**  
 FEASIBILITY STUDY OF PIEZOELECTRIC ACTUATORS DRIVE N BY A MICRO-  
 WAVE  
 03/06/1998 - 03/05/2001 FY00: \$99,999 Total: \$300,000  
 Prin. Invest.: K D SONG  
 Tech. Officer: LARC/S H CHOI  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 1 295 NORFOLK STATE UNIVERSITY 8945**  
 1998-SUMMER PRE-SERVICE TEACHER ENHANCEMENT INSTITUTE  
 04/27/1998 - 06/30/1999 FY00: -\$37,877 Total: \$204,323  
 Prin. Invest.: E WITTY  
 Tech. Officer: LARC/R HATHAWAY, LARC/E PRIOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 1 338 NORFOLK STATE UNIVERSITY 8946**  
 1999 SUMMER PRE-SERVICE TEACHER ENHANCEMENT INSTITUTE  
 04/15/1999 - 03/31/2000 FY00: \$0 Total: \$245,972  
 Prin. Invest.: R TUCKER-HOGAN, R CHAUCHURY  
 Tech. Officer: LARC/R A HATHAWAY, LARC/E J PRIOR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 1 381 NORFOLK STATE UNIVERSITY 8947**  
 2000 - PRE-SERVICE TEACHER ENHANCEMENT INSTITUTE  
 04/13/2000 - 03/31/2001 FY00: \$247,034 Total: \$247,034  
 Prin. Invest.: P TUCKER-HOGAN  
 Tech. Officer: LARC/R A HATHAWAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 457 NORFOLK STATE UNIVERSITY 8948**  
 MISSION-LEVERAGED EDUCATION: NSU-NASA INNOVATIVE UNDERGRAD-  
 UATE MODEL  
 02/22/2000 - 02/28/2001 FY00: \$292,845 Total: \$292,845  
 Prin. Invest.: L MATTIX  
 Tech. Officer: GSFC/M MATTHEWS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 514 NORFOLK STATE UNIVERSITY 8949**  
 DEVELOPMENT OF NOVEL COMPOSITE & RANDOM MATERIALS FOR  
 NONLINEAR OPTICS & LASERS  
 08/31/2000 - 09/14/2001 FY00: \$500,000 Total: \$500,000  
 Prin. Invest.: L MATTIX  
 Tech. Officer: GSFC/C PERSON  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 1884 OLD DOMINION UNIVERSITY 8950**  
 EXPERIMENTAL AND NUMERICAL ANALYSES OF STRUCTURAL ACOUSTIC  
 CONTROL FOR INTERIOR NOISE REDUCTION  
 01/10/1995 - 01/09/1999 FY00: -\$18,489 Total: \$285,293  
 Prin. Invest.: C MEI  
 Tech. Officer: LARC/T L TURNER, LARC/K P SHEPHERD  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1889 OLD DOMINION UNIVERSITY 8951**  
 MEASUREMENT OF OXYGEN A BAND LINE PARAMETERS BY USING  
 MODULATION SPECTROSCOPY WITH HIGHER HARMONIC  
 09/17/1996 - 03/16/1999 FY00: -\$22 Total: \$88,465  
 Prin. Invest.: A N DHARAMSI  
 Tech. Officer: LARC/W P CHU  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1940 OLD DOMINION UNIVERSITY 8952**  
 THE REDUCTION OF DUCTED FAN ENGINE NOISE VIA A BOUNDARY INTE-  
 GRAL EQUATION METHOD  
 05/29/1997 - 05/31/1999 FY00: -\$884 Total: \$276,820  
 Prin. Invest.: J TWEED, M DUNN  
 Tech. Officer: LARC/F FARASSAT, LARC/J W POSEY  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NAG 1 1982 OLD DOMINION UNIVERSITY 8953**  
 FINITE ELEMENT ANALYSIS OF REVERBERATION CHAMBERS MY 1/3  
 12/15/1997 - 12/31/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: C F BUNTING, D T NGUYEN  
 Tech. Officer: LARC/K J MOELLER  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 1 1985 OLD DOMINION UNIVERSITY 8954**  
 SOLUTION STRATEGY FOR NONLINEAR HEAT TRANSFER PROBLEMS  
 MODELED BY HP-VERSION GALERKIN METHODS  
 12/18/1997 - 12/31/1998 FY00: -\$329 Total: \$47,671  
*Prin. Invest.:* G J HOU  
*Tech. Officer:* LARC/K S BEY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 1989 OLD DOMINION UNIVERSITY 8955**  
 A STEP-SCAN FT-RAMAN FIBER-OPTIC SPECTROMETER FOR THER-  
 MOSET COMPOSIT ANALYSIS  
 01/06/1998 - 02/05/1999 FY00: -\$2,629 Total: \$101,870  
*Prin. Invest.:* J B COOPER  
*Tech. Officer:* LARC/B J JENSEN  
*CASE Category:* 12 - CHEMISTRY

**NAG 1 1995 OLD DOMINION UNIVERSITY 8956**  
 DIAMOND ELECTRON TUNNELING MICROELECTROMECHANICAL SENSOR  
 01/23/1998 - 01/22/2000 FY00: -\$1,705 Total: \$147,482  
*Prin. Invest.:* S ALBIN  
*Tech. Officer:* LARC/S K KAHNG  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 1 2082 OLD DOMINION UNIVERSITY 8957**  
 REMOTE SENSED PATTERNS SURFACES IN COASTAL WATERS USING  
 LANDSAT TM IMAGERY & REFLECTED GPSPOWER  
 06/26/1998 - 08/31/1999 FY00: -\$4,059 Total: \$20,906  
*Prin. Invest.:* G F OERTEL, T R ALLEN  
*Prin. Invest.:* NONE  
*Tech. Officer:* LARC/S J KATZBERG, LARC/J L GARRISON  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 1 2100 OLD DOMINION UNIVERSITY 8958**  
 TRANSITION IN SUPERSONIC FLOWS WITH CORNERS  
 08/11/1998 - 08/15/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* P BALAKUMAR  
*Tech. Officer:* LARC/C R MCCLINTON, LARC/D E REUBUSH  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2101 OLD DOMINION UNIVERSITY 8959**  
 THE INFLUENCE OF NAT. CULTURE ON FLT CREW PERF: A CULTURE-CEN-  
 TERED APPROACH TO HUMAN FACTORS  
 08/25/1998 - 08/31/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* D DAVIS  
*Tech. Officer:* LARC/P C SCHUTTE  
*CASE Category:* 62 - PSYCHOLOGY SOCIAL ASPECTS

**NAG 1 2105 OLD DOMINION UNIVERSITY 8960**  
 BIOCYBERNETIC CONTROL OF VIGILANCE TASK PARAMETERS  
 09/11/1998 - 12/31/1999 FY00: -\$346 Total: \$49,654  
*Prin. Invest.:* F G FREEMAN, M W SCERBO, P J MIKULKA  
*Tech. Officer:* LARC/A T POPE, LARC/L J PRINZEL  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NAG 1 2118 OLD DOMINION UNIVERSITY 8961**  
 THE PREDICTION OF NOISE SCATTERED BY A WING/ DUCTED FAN  
 CONFIGURATION  
 11/05/1998 - 11/30/1999 FY00: -\$17 Total: \$73,549  
*Prin. Invest.:* J TWEED, M DUNN  
*Tech. Officer:* LARC/J S PREISSER, LARC/F FARASSAT  
*CASE Category:* 13 - PHYSICS

**NAG 1 2121 OLD DOMINION UNIVERSITY 8962**  
 DISTURBANCE DYNAMICS IN TRANSITIONAL AND TURBULENT FLOWS  
 01/05/1999 - 12/31/1999 FY00: -\$2 Total: \$14,999  
*Prin. Invest.:* C E GROSCH  
*Tech. Officer:* LARC/T B GATSKI  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2123 OLD DOMINION UNIVERSITY 8963**  
 SIGNAL PROCESSING AND SOFTWARE ENHANCEMENTS FOR THE  
 ACOUSTIC FETAL HEART RATE MONITOR  
 12/09/1998 - 08/31/1999 FY00: -\$4 Total: \$14,997  
*Prin. Invest.:* S A ZAHORIAN  
*Tech. Officer:* LARC/A J ZUCKERWAR  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 1 2141 OLD DOMINION UNIVERSITY 8964**  
 EXPERIMENTAL & NUMERICAL ANALYSIS OF STRUCTURAL ACOUSTIC  
 CONTROL FOR INTERIOR NOISE REDUCTION  
 02/03/1999 - 05/15/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* C MEI  
*Tech. Officer:* LARC/T L TURNER, LARC/K P SHEPHERD  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2143 OLD DOMINION UNIVERSITY 8965**  
 OBJECT-ORIENTED APPROACH TO HIGHER-LEVEL NETWORK  
 MONITORING AND MANAGEMENT  
 02/01/1999 - 05/30/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* R MUKKAMALA  
*Tech. Officer:* LARC/E SIMAN-TOV  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 1 2150 OLD DOMINION UNIVERSITY 8966**  
 PANEL FLUTTER AND SONIC FATIGUE ANALYSIS FOR RLV  
 02/09/1999 - 09/30/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* C MEI  
*Tech. Officer:* LARC/M L BLOSSER, LARC/S J SCOTTI  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2156 OLD DOMINION UNIVERSITY 8967**  
 A COMPARISON OF QUASI-STATIC INDENTATION & DROP-WT IMPACT  
 TESTING ON CARBON/EPOXY LAMINATES  
 03/16/1999 - 12/15/1999 FY00: -\$198 Total: \$34,802  
*Prin. Invest.:* R PRABHAKARAN  
*Tech. Officer:* LARC/I S RAJU, LARC/J R REEDER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2157 OLD DOMINION UNIVERSITY 8968**  
 DEV OF RESPONSE SURFACE MODELS FOR RAPID ANAL AND MULTIDIS-  
 CIPL OPTIMIZ OF LAUNCH VEH DESIGN CONCEPTS  
 03/26/1999 - 12/31/1999 FY00: \$0 Total: \$28,079  
*Prin. Invest.:* R UNAL  
*Tech. Officer:* LARC/M K LOCKWOOD  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 1 2184 OLD DOMINION UNIVERSITY 8969**  
 PARALLEL CFD 1999 INTERNATIONAL CONFERENCE (CONFERENCE  
 5/23-26/99 IN WMSBG, VA)  
 04/20/1999 - 08/19/1999 FY00: -\$1 Total: \$10,000  
*Prin. Invest.:* D E KEYES  
*Tech. Officer:* LARC/D H RUDY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2195 OLD DOMINION UNIVERSITY 8970**  
 PROCESS COST MODELING FOR MULTIDISCIPLINARY DESIGN APPLICATIONS  
 05/21/1999 - 09/30/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: H P BAO  
 Tech. Officer: LARC/W T FREEMAN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2199 OLD DOMINION UNIVERSITY 8971**  
 GEOGRAPHICAL DATABASE INTEGRITY VALIDATION  
 06/25/1999 - 04/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: P J KAUFMANN, D A JACOBS  
 Tech. Officer: LARC/S D YOUNG  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 1 2211 OLD DOMINION UNIVERSITY 8972**  
 DEVELOPMENT OF A TRANSIENT CUT-OFF GRID FOR FOCUS SCHLIEREN  
 07/12/1999 - 06/14/2002 FY00: \$0 Total: \$0  
 Prin. Invest.: G R HOY, K S SCHANZE  
 Tech. Officer: LARC/M A TALLEY, LARC/A W BURNER  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 1 2212 OLD DOMINION UNIVERSITY 8973**  
 TO CONDUCT/MGT OF NATIONAL GENERAL AVIATION DESIGN COMPETITION  
 06/29/1999 - 12/31/1999 FY00: \$0 Total: \$25,000  
 Prin. Invest.: M L SANDY  
 Tech. Officer: LARC/H W JARRETT, 111, LARC/B J HOLMES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2251 OLD DOMINION UNIVERSITY 8974**  
 DISTURBANCE DYNAMICS IN TRANSITIONAL & TURBULENT BOUNDARY LAYERS  
 11/23/1999 - 11/01/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: C E GROSCH  
 Tech. Officer: LARC/T B GATSKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2252 OLD DOMINION UNIVERSITY 8975**  
 USER ACCEPTABILITY OF PHYSIOLOGICAL AND OTHER MEASURES OF HAZARDOUS STATES OF AWARENESS  
 11/23/1999 - 10/31/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: T L DICKINSON, F G FREEMAN, P M MIKULKA  
 Tech. Officer: LARC/A T POPE  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 1 2254 OLD DOMINION UNIVERSITY 8976**  
 EXTERNAL VALIDITY CONSIDERATIONS OF A BIOCYBERNETIC SYSTEM FOR ADAPTIVE AUTOMATION  
 11/23/1999 - 12/31/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: M W SCERBO, P J MIKULKA, F G FREEMAN  
 Tech. Officer: LARC/A T POPE  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 5 4515 OLD DOMINION UNIVERSITY 8977**  
 STUDYING THE EARTH'S ENVIRONMENT IN SPACE: CLASSR ACTIVITIES WITH INSTRUCTION RESOURCES.  
 06/02/1997 - 12/31/2000 FY00: -\$2,661 Total: \$166,896  
 Prin. Invest.: E SMITH  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 5100 OLD DOMINION UNIVERSITY 8978**  
 IMPROVEMENTS TO BALLOON VERTICAL PERFORMANCE MODEL TERRESTRIAL & NON-TERRESTRIAL APPLICATIONS  
 02/11/1997 - 09/30/2000 FY00: -\$16 Total: \$79,927  
 Prin. Invest.: G V SELBY  
 Tech. Officer: GSFC/H C NEEDLEMAN, GSFC/B A MERRITT  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 5 5131 OLD DOMINION UNIVERSITY 8979**  
 INVOLVING STUDENTS IN THE DESIGNING AND DEVELOPING OF A SCIENTIFIC BALLOON PAYLOAD-BALLOONLAUNCH PR  
 07/02/1997 - 03/31/2000 FY00: \$0 Total: \$35,000  
 Prin. Invest.: A PIERCE  
 Tech. Officer: GSFC/H NEEDLEMAN  
 CASE Category: 12 - CHEMISTRY

**NAS 1 99093 OLD DOMINION UNIVERSITY 8980**  
 ROBUST STABILITY AND PERFORMANCE OF A CLOSED-LOOP COMPUTER CONTROL SYSTEM SUBJECT TO ELECTROMAGNETIC  
 04/01/1999 - 03/31/2000 FY00: \$0 Total: \$176,516  
 Prin. Invest.: W GRAY  
 Tech. Officer: LARC/C BELCASTRO  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAS 1 99160 OLD DOMINION UNIVERSITY 8981**  
 TESTBED OF INTEROPERABLE MULTIDISCIPLINARY DIGITAL LIBRARIES  
 09/22/1999 - 09/21/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: K MALY  
 Tech. Officer: LARC/M M LITTLE, LARC/N R KAPLAN  
 CASE Category: 22 - COMPUTER SCIENCE

**NAS 5 97132 OLD DOMINION UNIVERSITY 8982**  
 REMOTE SENSING OF OCEAN COLOR IN THE ARCTIC  
 09/01/1997 - 02/28/2001 FY00: \$0 Total: \$640,608  
 Prin. Invest.: G F COTA  
 Tech. Officer: GSFC/C MCCLAIN  
 CASE Category: 33 - OCEANOGRAPHY

**NCC 1 227 OLD DOMINION UNIVERSITY 8983**  
 INVESTIGATION OF ADVANCED COMPOSITE MATERIALS AND AUTOMATED PROCESS  
 05/17/1996 - 09/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: S TIWARI  
 Tech. Officer: LARC/N J JOHNSTON, LARC/R J CANO  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 1 232 OLD DOMINION UNIVERSITY 8984**  
 INSTITUTE FOR SCIENTIFIC AND EDUCATIONAL TECHNOLOGY (ISET)  
 06/17/1996 - 06/30/1999 FY00: -\$1 Total: \$1,189,134  
 Prin. Invest.: S TIWARI  
 Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 254 OLD DOMINION UNIVERSITY 8985**  
 ASSESSMENT OF BIOMEDICAL ENGINEERING IN MAN/ MACHINE INTERACTIONS  
 04/22/1997 - 10/21/1999 FY00: -\$425 Total: \$67,472  
 Prin. Invest.: S TIWARI  
 Tech. Officer: LARC/A T POPE  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 1 284** **OLD DOMINION UNIVERSITY** **8986**  
 SIMULATION OF STRUCTURAL DAMAGE AND ITS PROPAGATION IN  
 COMPOSITE SHELLS INCLUDING INTERLAMINAR  
 04/07/1998 - 10/31/1999 FY00: -\$5,992 Total: \$140,504  
 Prin. Invest.: C MEI  
 Tech. Officer: LARC/J H STARNES, LARC/D R AMBUR  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 320** **OLD DOMINION UNIVERSITY** **8987**  
 STUDY OF APPLICATION OF GREEN'S FUNCTION METHODS APPLIED TO  
 SPACE RADIATION PROTECTION  
 09/23/1998 - 09/30/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: J H HEINBOCKEL  
 Tech. Officer: LARC/R C SINGLETERRY, LARC/J W WILSON  
 CASE Category: 13 - PHYSICS

**NCC 1 322** **OLD DOMINION UNIVERSITY** **8988**  
 EXPERIMENTAL DEVELOPMENT AND PHYSICAL ANALYSIS OF JET AND  
 VORTEX ACTUATORS  
 11/17/1998 - 08/31/2000 FY00: \$7,580 Total: \$58,495  
 Prin. Invest.: O A KANDIL, J T LACHOWICZ  
 Tech. Officer: LARC/C YAO  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 349** **OLD DOMINION UNIVERSITY** **8989**  
 INSTITUTE FOR SCIENTIFIC & EDUCATIONAL TECHNOLOGY (FOLLOW-ON  
 TO NCC-1-232)  
 06/28/1999 - 06/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: S N TIWARI  
 Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 363** **OLD DOMINION UNIVERSITY** **8990**  
 AUTOMATED, NON-AUTOCLAVE, COMPOSITE MATERIALS FABRICATION  
 (NRA 99-LARC-1)  
 11/29/1999 - 11/30/2002 FY00: \$0 Total: \$0  
 Prin. Invest.: R B PIPES  
 Tech. Officer: LARC/R J CANO  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 1 364** **OLD DOMINION UNIVERSITY** **8991**  
 PSYCHOPHYSIOLOGICAL CONTROL OF ACOGNITIVE TASK USING ADAP-  
 TIVE AUTOMATION  
 12/09/1999 - 11/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: F G FREEMAN  
 Tech. Officer: LARC/A T POPE  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 5 258** **OLD DOMINION UNIVERSITY** **8992**  
 PHYSICAL-BIOLOGICAL INTERACTIONS IN THE GLOBAL EQUATORIAL  
 SURFACE LAYER  
 11/17/1997 - 10/31/2001 FY00: \$131,413 Total: \$376,303  
 Prin. Invest.: E HOFMANN  
 Tech. Officer: GSFC/J MARRA  
 CASE Category: 11 - ASTRONOMY

**NGT 1 52124** **OLD DOMINION UNIVERSITY** **8993**  
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)  
 05/15/1998 - 06/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: K L WISE, J B COOPER  
 Tech. Officer: LARC/B J JENSEN  
 CASE Category: 12 - CHEMISTRY

**NGT 1 52171** **OLD DOMINION UNIVERSITY** **8994**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 05/29/1997 - 12/31/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: C P BRITCHER  
 Tech. Officer: LARC/N J GROOW  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 1 52173** **OLD DOMINION UNIVERSITY** **8995**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/07/1997 - 06/30/1999 FY00: -\$2,477 Total: \$41,523  
 Prin. Invest.: C MEI  
 Tech. Officer: LARC/J H STARNES, JR.  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 1 52182** **OLD DOMINION UNIVERSITY** **8996**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/20/1998 - 06/30/1999 FY00: -\$1,779 Total: \$20,222  
 Prin. Invest.: T M EISCHEID, M SCERBO  
 Tech. Officer: LARC/A T POPE, LARC/P C SCHUTTE  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NGT 1 52193** **OLD DOMINION UNIVERSITY** **8997**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/20/1998 - 06/30/2000 FY00: \$12,000 Total: \$44,000  
 Prin. Invest.: A FITZGIBBONS  
 Tech. Officer: LARC/P C SHUTTE  
 CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

**NGT 1 52194** **OLD DOMINION UNIVERSITY** **8998**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/20/1998 - 12/31/1999 FY00: \$1,000 Total: \$33,000  
 Prin. Invest.: D RICHMOND, S ALBIN  
 Tech. Officer: LARC/S K KAHNG  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 1 52201** **OLD DOMINION UNIVERSITY** **8999**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 08/31/1998 - 06/30/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: C K AASEN  
 Tech. Officer: LARC/A E MOTLEY, III, LARC/A G HAGEMANN  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 1 52208** **OLD DOMINION UNIVERSITY** **9000**  
 NASA-ASEE SUMMER FACULTY RESEARCH PROGRAM  
 03/11/1999 - 12/31/2000 FY00: \$0 Total: \$0  
 Prin. Invest.: S N TUIVORE  
 Tech. Officer: LARC/R A HATHAWAY  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52210** **OLD DOMINION UNIVERSITY** **9001**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/26/1999 - 06/30/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: D T NGUYEN  
 Tech. Officer: LARC/J SOBIESKI  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 1 52211** **OLD DOMINION UNIVERSITY** **9002**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/26/1999 - 06/30/2001 FY00: \$0 Total: \$0  
 Prin. Invest.: H SAYID ELE  
 Tech. Officer: LARC/R J DEYOUNG  
 CASE Category: 45 - ELECTRICAL ENGR

## NASA'S UNIVERSITY PROGRAM

VIRGINIA

**NGT 1 52213** **OLD DOMINION UNIVERSITY** **9003**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/28/1999 - 06/30/2000 FY00: \$6,575 Total: \$21,975  
*Prin. Invest.:* C M FITZGERALD, DHARAMSI  
*Tech. Officer:* LARC/G J KOCH  
*CASE Category:* 45 - ELECTRICAL ENGR

**NGT 1 52219** **OLD DOMINION UNIVERSITY** **9004**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/04/1999 - 06/30/2001 FY00: \$0 Total: \$0  
*Prin. Invest.:* F G FREEMAN  
*Tech. Officer:* LARC/A T POPE, LARC/L J PRINZED, 111  
*CASE Category:* 61 - PSYCHOLOGY BIOLOGY

**NGT 1 52220** **OLD DOMINION UNIVERSITY** **9005**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/04/1999 - 06/30/2001 FY00: \$0 Total: \$0  
*Prin. Invest.:* G D COATES  
*Tech. Officer:* LARC/A T POPE, LARC/L J PRINZEL, 111  
*CASE Category:* 61 - PSYCHOLOGY BIOLOGY

**NGT 1 52221** **OLD DOMINION UNIVERSITY** **9006**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/29/1999 - 12/31/2000 FY00: \$0 Total: \$0  
*Prin. Invest.:* A A FINK, D A MAJOR  
*Tech. Officer:* LARC/P C SCHUTTE  
*CASE Category:* 62 - PSYCHOLOGY SOCIAL ASPECTS

**NGT 5 40059** **OLD DOMINION UNIVERSITY** **9007**  
 IN SUPPORT OF THE NATIONAL SPACE GRANT COLLEGE PROGRAM  
 02/21/1997 - 01/31/2001 FY00: \$475,000 Total: \$1,952,998  
*Prin. Invest.:* M L SANDY  
*Tech. Officer:* GSFC/L KEFFER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 5053** **ROANOKE COLLEGE** **9008**  
 CROSS SECTION CALCULATION FOR COSMIC RAY DATA ANALYSIS OF  
 NASA SPONSORED EXPERIMENTS  
 03/27/1996 - 09/30/1998 FY00: \$0 Total: \$80,000  
*Prin. Invest.:* C TASCO  
*Tech. Officer:* GSFC/H NEEDLEMAN  
*CASE Category:* 13 - PHYSICS

**NAG 5 5165** **ROANOKE COLLEGE** **9009**  
 IMPROVED MODELING FOR THE COSMIC RAY ORIGIN FUNDING FOR FIRST  
 YEAR OF GRANT  
 03/09/1998 - 03/08/2001 FY00: \$35,750 Total: \$115,750  
*Prin. Invest.:* C H TSAO  
*Tech. Officer:* GSFC/B A MERRITT  
*CASE Category:* 13 - PHYSICS

**NAG 8 1208** **ROANOKE COLLEGE** **9010**  
 JOVE  
 09/25/1995 - 08/31/2000 FY00: \$0 Total: \$51,008  
*Prin. Invest.:* A F BARGHOUTY  
*Tech. Officer:* MSFC/D SIX  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 745** **UNIVERSITY OF VIRGINIA** **9011**  
 ENVIRONMENT ASSISTED DEGRADATION MECHANISMS IN ALUMINUM-  
 LITHIUM ALLOYS  
 03/23/1987 - 12/31/1999 FY00: \$0 Total: \$0  
*Prin. Invest.:* R P GANGLOFF, G E STONER  
*Tech. Officer:* LARC/D L DICUS, LARC/D M ROYSTER  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 1 1774** **UNIVERSITY OF VIRGINIA** **9012**  
 LASE VALIDATION EXPERIMENT  
 10/24/1995 - 03/31/1999 FY00: -\$2,739 Total: \$94,154  
*Prin. Invest.:* M GARSTANG  
*Tech. Officer:* LARC/EV BROWELL, LARC/E J CONWAY  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 1 1841** **UNIVERSITY OF VIRGINIA** **9013**  
 NASA/UVA LIGHT AEROSPACE ALLOY AND STRUCTURES TECH PROGRAM  
 (LA2ST)  
 05/31/1996 - 05/31/1999 FY00: -\$1,006 Total: \$118,994  
*Prin. Invest.:* R P GANGLOFF  
*Tech. Officer:* LARC/R S PIASCIK  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 1 1953** **UNIVERSITY OF VIRGINIA** **9014**  
 INTELLIGENT PROCESSING OF MATERIALS  
 08/13/1997 - 01/31/1999 FY00: -\$1 Total: \$300,000  
*Prin. Invest.:* H N WADLEY  
*Tech. Officer:* HQ/C MOORE  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 1 1962** **UNIVERSITY OF VIRGINIA** **9015**  
 DEPOSITION OF FILMS FOR OPTIMAL GIANT MAGNETS RESISTANCE  
 08/21/1997 - 05/31/1999 FY00: \$0 Total: \$700,000  
*Prin. Invest.:* H N WADLEY  
*Tech. Officer:* LARC/B R HANKS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 1964** **UNIVERSITY OF VIRGINIA** **9016**  
 INTELLIGENT PROCESSING OF MATERIALS FOR DESIGN AND MANUFACTURING, ETC.  
 09/30/1997 - 12/31/2000 FY00: \$0 Total: \$4,877,789  
*Prin. Invest.:* H N WADLEY  
*Tech. Officer:* LARC/C MOORE  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2004** **UNIVERSITY OF VIRGINIA** **9017**  
 IMPEDANCE MODULATION.  
 02/11/1998 - 06/30/1999 FY00: \$0 Total: \$0  
*Prin. Invest.:* W E ZORUMSKI  
*Tech. Officer:* LARC/C H GERHOLD, LARC/J W POSEY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2016** **UNIVERSITY OF VIRGINIA** **9018**  
 EFFECT OF DISCONTINUITIES AND UNCERTAINTIES ON THE RESPONSE  
 AND FAILURE OF COMPOSITE STRUCTURES  
 02/27/1998 - 01/31/2001 FY00: \$105,568 Total: \$289,281  
*Prin. Invest.:* A K NOOR  
*Tech. Officer:* LARC/J H STARNES  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2031 UNIVERSITY OF VIRGINIA 9019**  
 LOAD DIFFUSION IN COMPOSITE STRUCTURES  
 03/25/1998 - 03/24/2000 FY00: \$1 Total: \$39,334  
*Prin. Invest.:* C O HORGAN  
*Tech. Officer:* LARC/J H STARNES, LARC/M P NEMETH  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2120 UNIVERSITY OF VIRGINIA 9020**  
 REACTION CONTROL SYSTEMS FLOWFIELDS MEASUREMENTS  
 12/01/1998 - 03/30/1999 FY00: -\$11,588 Total: \$8,412  
*Prin. Invest.:* J C MCDANIEL  
*Tech. Officer:* LARC/C E GLASS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2131 UNIVERSITY OF VIRGINIA 9021**  
 DUAL-MODE COMBUSTION (FOLLOW-ON TO NAG-1-2085)  
 01/26/1999 - 10/31/2001 FY00: \$125,000 Total: \$325,000  
*Prin. Invest.:* J C MCDANIEL, E H MASLAN, H K CHELLIAH  
*Tech. Officer:* LARC/D E REUBUSH, LARC/C R MCCLINTON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2176 UNIVERSITY OF VIRGINIA 9022**  
 DAMAGE-TOLERANCE OF LIGHT AEROSPACE ALLOYS UNDER DEMANDING  
 MECHANICAL & ELECTROCHEMICAL CONDITIONS  
 03/31/1999 - 12/31/2000 FY00: \$0 Total: \$343,937  
*Prin. Invest.:* R P GANGLOFF, E A STARKE  
*Tech. Officer:* LARC/D L DICUS, LARC/N S DOMACK  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 1 2282 UNIVERSITY OF VIRGINIA 9023**  
 METALLURGICAL FACTORS CONTROLLING LOCALIZED CORROSION AND  
 STRESS CORROSION CRACK INITIATION  
 03/22/2000 - 02/28/2001 FY00: \$49,500 Total: \$49,500  
*Prin. Invest.:* D A LITTLE, J R SCULLY  
*Tech. Officer:* LARC/M S DOMACK/D L DICUS  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 1 2290 UNIVERSITY OF VIRGINIA 9024**  
 PRACTICAL USE OF FORMAL TECHNIQUES IN AEROSPACE IN SOFTWARE  
 SYSTEMS  
 05/01/2000 - 11/30/2002 FY00: \$150,000 Total: \$150,000  
*Prin. Invest.:* J C KNIGHT, D E EVANS  
*Tech. Officer:* LARC/K J HAYHURST  
*CASE Category:* 22 - COMPUTER SCIENCE

**NAG 1 2321 UNIVERSITY OF VIRGINIA 9025**  
 DEVELOPMENT OF SENSORY ALLOYS FOR ACOUSTIC STRAIN MONITORS  
 08/14/2000 - 08/31/2001 FY00: \$40,000 Total: \$40,000  
*Prin. Invest.:* G SHIFLET  
*Tech. Officer:* LARC/R PIASCIK  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 3 1916 UNIVERSITY OF VIRGINIA 9026**  
 INSTABILITY MECHANISMS OF THERMALLY-DRIVEN INTERFACIAL FLOWS  
 IN LIGHT-ENCAPSULATED CRYSTALGROWTH  
 07/16/1996 - 07/16/2001 FY00: \$49,000 Total: \$336,000  
*Prin. Invest.:* H HAJ-HARIRI  
*Tech. Officer:* GRC/T GLASGOW  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 1928 UNIVERSITY OF VIRGINIA 9027**  
 HETEROGENEOUS COMB OF POROUS SOLID FUEL PART UNDER MICRO-  
 GRAV: A COMPREHENSIVE THERMO & EXP STUDIES  
 07/23/1996 - 07/24/2001 FY00: \$26,295 Total: \$215,705  
*Prin. Invest.:* H CHELLIAH, F MILLER  
*Tech. Officer:* GRC/H ROSS  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 1948 UNIVERSITY OF VIRGINIA 9028**  
 EXTENSIONS TO THE TURBO CODING SCHEME  
 08/12/1996 - 07/31/1999 FY00: \$0 Total: \$131,653  
*Prin. Invest.:* D G WILSON, M K HALL  
*Tech. Officer:* GRC/M KIFLE, GRC/M V NGUYEN  
*CASE Category:* 45 - ELECTRICAL ENGR

**NAG 3 2183 UNIVERSITY OF VIRGINIA 9029**  
 MEASUREMENT AND ANALYSIS OF POWER LOSSES IN MAGNETIC BEAR-  
 INGS: PHASE II  
 07/23/1998 - 05/31/1999 FY00: \$0 Total: \$25,000  
*Prin. Invest.:* P E ALLAIRE  
*Tech. Officer:* GRC/A J PROVENZA  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2199 UNIVERSITY OF VIRGINIA 9030**  
 ADVANCED CONTROL OF FLYWHEELS WITH ACTIVE MAGNETIC BEARINGS  
 09/10/1998 - 07/05/1999 FY00: \$0 Total: \$15,800  
*Prin. Invest.:* C R KNOSPE  
*Tech. Officer:* GRC/G BROWN  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2252 UNIVERSITY OF VIRGINIA 9031**  
 INTERNALLY-COOLED FUNCTIONALLY GRADED CYLINDERS INTERNALLY-  
 COOLED FUNCTIONALLY GRADED CYLINDERS  
 03/31/1999 - 02/29/2000 FY00: \$0 Total: \$42,375  
*Prin. Invest.:* M J PINDER  
*Tech. Officer:* GRC/S M ARNOLD  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2359 UNIVERSITY OF VIRGINIA 9032**  
 RLV THRUST CELL LINER COATING ANALYSIS AND OPTIMIZATION  
 03/16/2000 - 01/31/2001 FY00: \$58,500 Total: \$58,500  
*Prin. Invest.:* M J PINDER  
*Tech. Officer:* GRC/S M ARNOLD  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2411 UNIVERSITY OF VIRGINIA 9033**  
 IMPACT OF INTERNALLY-COOLED FUNCTIONALLY GRADED CYLINDERS  
 05/09/2000 - 04/04/2001 FY00: \$30,000 Total: \$30,000  
*Prin. Invest.:* M J PINDER  
*Tech. Officer:* GRC/S M ARNOLD  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 1961 UNIVERSITY OF VIRGINIA 9034**  
 INTERDISCIPLINARY RESEARCH SCENARIO TESTING OF EOS DIS,  
 VERSION O - SERIES 2  
 04/03/1992 - 08/14/1999 FY00: \$0 Total: \$452,009  
*Prin. Invest.:* M GARSTANG, G D EMMITT  
*Tech. Officer:* GSFC/STOCKEY  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3057 UNIVERSITY OF VIRGINIA 9035**  
 DYNAMICS AND EMISSION OF HOT ASTROPHYSICAL PLASMAS  
 09/15/1995 - 09/14/1999 FY00: \$0 Total: \$288,000  
 Prin. Invest.: C L SARAZIN  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3058 UNIVERSITY OF VIRGINIA 9036**  
 NUMERICAL MHD STUDIES OF ACCRETION DISKS  
 09/25/1995 - 09/30/1999 FY00: \$0 Total: \$180,000  
 Prin. Invest.: J F HAWLEY  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3633 UNIVERSITY OF VIRGINIA 9037**  
 CHARGED PARTICLE INDUCED ALTERATIONS OF SURFACES I  
 03/13/1997 - 01/31/2001 FY00: \$37,050 Total: \$145,005  
 Prin. Invest.: R E JOHNSON  
 Tech. Officer: GSFC/P G ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3931 UNIVERSITY OF VIRGINIA 9038**  
 EROSIONAL PROCESSES ON MARS  
 03/12/1997 - 02/28/2001 FY00: \$57,000 Total: \$233,763  
 Prin. Invest.: A D HOWARD  
 Tech. Officer: GSFC/J G GRANT  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 3973 UNIVERSITY OF VIRGINIA 9039**  
 ADVANCED COMPUTATIONAL METHODS FOR THE NUMERICAL S METEO-  
 ROLOGICAL FLOW PROBLEMS  
 03/03/1997 - 01/31/2001 FY00: \$35,000 Total: \$326,830  
 Prin. Invest.: J J DORNING  
 Tech. Officer: GSFC/K H BERGMAN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4192 UNIVERSITY OF VIRGINIA 9040**  
 ION COLLISION PROCESSES: PLASMA INTERACTIONS WITH AN NEUTRAL  
 CORONA  
 04/10/1997 - 03/31/2001 FY00: \$79,222 Total: \$325,248  
 Prin. Invest.: D E JOHNSON  
 Tech. Officer: GSFC/J BERGSTRALH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4283 UNIVERSITY OF VIRGINIA 9041**  
 EROSION AND ALTERATION OF INTERSTELLAR AND INTERPL  
 04/07/1997 - 05/31/2001 FY00: \$32,000 Total: \$142,700  
 Prin. Invest.: D E JOHNSON  
 Tech. Officer: GSFC/D BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4332 UNIVERSITY OF VIRGINIA 9042**  
 SUBLIMATION AND OPTICAL PROPERTIES OF ICES AT LOW TO SOLAR  
 SYSTEM OBJECTS  
 04/30/1997 - 03/31/2001 FY00: \$47,975 Total: \$193,971  
 Prin. Invest.: D A BARAGIOLA  
 Tech. Officer: GSFC/P ROGERS  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 4388 UNIVERSITY OF VIRGINIA 9043**  
 FIRST YEAR OF TECHNICAL PROPOSAL, LAND-COVER/LAND-  
 05/02/1997 - 04/14/2000 FY00: \$0 Total: \$364,428  
 Prin. Invest.: C O JUSTICE  
 Tech. Officer: GSFC/G C GUTMANS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4516 UNIVERSITY OF VIRGINIA 9044**  
 CLUSTER DARK MATTER DENSITY PROFILES AT VERY LARGE OF CLUSTER  
 COOLING FLOWS: SPECTRAL EVIDENCE FOR C  
 08/19/1997 - 08/31/1999 FY00: -\$1 Total: \$48,299  
 Prin. Invest.: C L SARAZIN  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4600 UNIVERSITY OF VIRGINIA 9045**  
 MAGNETOHYDRODYNAMICS OF THE SOLAR NEBULA  
 05/14/1997 - 05/31/1999 FY00: -\$362 Total: \$55,602  
 Prin. Invest.: S A BALBUS  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4651 UNIVERSITY OF VIRGINIA 9046**  
 ALTERATIONS OF PLANETARY MATERIALS BY PHOTON AND P  
 06/27/1997 - 05/31/1999 FY00: -\$1,991 Total: \$53,009  
 Prin. Invest.: D BARAGIOLA  
 Tech. Officer: GSFC/D NAVA  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4779 UNIVERSITY OF VIRGINIA 9047**  
 AQUARIUS  
 06/18/1997 - 12/31/2000 FY00: \$15,000 Total: \$595,073  
 Prin. Invest.: M GARSTANG  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6043 UNIVERSITY OF VIRGINIA 9048**  
 EFFECTS OF THE DEVELOPMENT OF THE BAIKAL-AMUR MAIN PATTERNS  
 OF BOREAL FOREST COVER AND CARBON FLUXES  
 07/23/1997 - 07/31/2000 FY00: \$20,000 Total: \$159,113  
 Prin. Invest.: H SHUGART  
 Tech. Officer: GSFC/A JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6084 UNIVERSITY OF VIRGINIA 9049**  
 SUPERCONDUCTOR AND SEMICONDUCTOR RESEARCH FOR NASA WAVE-  
 LENGTH MISSIONS  
 08/08/1997 - 03/31/2000 FY00: \$0 Total: \$426,000  
 Prin. Invest.: D W CROWE  
 Tech. Officer: GSFC/H THRONSON  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6279 UNIVERSITY OF VIRGINIA 9050**  
 GLOBAL VEGETATION DYNAMICS  
 09/12/1997 - 08/31/2000 FY00: \$53,689 Total: \$232,422  
 Prin. Invest.: H H SHUGART  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6351 UNIVERSITY OF VIRGINIA 9051**  
 VEMAP PHASE II.  
 09/12/1997 - 05/31/2001 FY00: \$0 Total: \$292,215  
*Prin. Invest.:* T SMITH  
*Tech. Officer:* GSFC/A JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6384 UNIVERSITY OF VIRGINIA 9052**  
 THE COUPLING LAND-USE AND LAND-COVER CHANGES, AND MIOMBO WOODLANDS  
 09/28/1997 - 10/31/2000 FY00: \$68,550 Total: \$570,165  
*Prin. Invest.:* P DESANKER  
*Tech. Officer:* GSFC/A C JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6403 UNIVERSITY OF VIRGINIA 9053**  
 CRITICAL TESTS OF STELLAR EVOLUTION (LTSa)  
 10/10/1997 - 10/14/2001 FY00: \$163,000 Total: \$314,399  
*Prin. Invest.:* R O'CONNELL  
*Tech. Officer:* GSFC/R K OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6507 UNIVERSITY OF VIRGINIA 9054**  
 THE DEVELOPMENT OF SUBMILLIMETER WAVELENGTH RECEIVERS FOR MICROWAVEREMOTE SENSING  
 11/04/1997 - 05/31/2000 FY00: \$0 Total: \$356,217  
*Prin. Invest.:* J HESLER  
*Tech. Officer:* GSFC/L HILLIARD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6828 UNIVERSITY OF VIRGINIA 9055**  
 GAS EVOLUTION FROM ICY SURFACES  
 01/15/1998 - 01/14/2001 FY00: \$49,643 Total: \$130,643  
*Prin. Invest.:* R BARAGIOLA  
*Tech. Officer:* GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7033 UNIVERSITY OF VIRGINIA 9056**  
 EVALUATION OF INCREMENTAL RELEASES OF ECS USER INTERFACES AND THE DEVELOPMENT OF HDF/HDF-EOS  
 02/19/1998 - 09/30/2000 FY00: \$0 Total: \$113,851  
*Prin. Invest.:* G D EMMITT  
*Tech. Officer:* GSFC/H K RAMPRIYAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7104 UNIVERSITY OF VIRGINIA 9057**  
 ULTRAVIOLET SPECTRAL DIAGNOSTICS FOR OLD STELLAR POPULATIONS  
 03/13/1998 - 03/31/2001 FY00: \$26,783 Total: \$41,875  
*Prin. Invest.:* R T ROOD  
*Tech. Officer:* GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7108 UNIVERSITY OF VIRGINIA 9058**  
 ALTERATIONS OF PLANETARY MATERIALS BY PHOTON AND PARTICLE IRRADIATION  
 03/17/1998 - 05/31/1999 FY00: \$0 Total: \$40,000  
*Prin. Invest.:* R A BARAGIOLA  
*Tech. Officer:* HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7286 UNIVERSITY OF VIRGINIA 9059**  
 SOUTHERN AFRICAN VALIDATION OF EOS GROUND AND AIRBORNE INSTRUMENTATION AND VALIDATION ACTIVITIES  
 04/30/1998 - 04/30/2001 FY00: \$136,586 Total: \$499,858  
*Prin. Invest.:* R J SWAPP  
*Tech. Officer:* GSFC/J PRIVETTE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7417 UNIVERSITY OF VIRGINIA 9060**  
 CENTRAL AFRICAN REGIONAL PROJECT FOR THE ENVIRONMENT: REMOTE SENSING AND GIS SUPPORT ACTIVITIES  
 05/22/1998 - 01/31/2000 FY00: \$0 Total: \$179,000  
*Prin. Invest.:* C JUSTICE  
*Tech. Officer:* GSFC/C TUCKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7500 UNIVERSITY OF VIRGINIA 9061**  
 MAGNETOHYDRODYNAMICS OF THE SOLAR NEBULA  
 06/01/1998 - 05/31/2001 FY00: \$50,000 Total: \$164,000  
*Prin. Invest.:* S BALBUS  
*Tech. Officer:* HQ/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7625 UNIVERSITY OF VIRGINIA 9062**  
 REACTION WHEEL JITTER REDUCTION THROUGH ACTIVE CONTROL OF MAGNETIC BEARINGS  
 08/03/1998 - 09/30/1999 FY00: \$0 Total: \$39,447  
*Prin. Invest.:* C KNOSPE  
*Tech. Officer:* GSFC/G BROWN  
 CASE Category: 45 - ELECTRICAL ENGR

**NAG 5 7748 UNIVERSITY OF VIRGINIA 9063**  
 SPUTTERING OF THE MARTIAN ATMOSPHERE  
 11/04/1998 - 12/31/2001 FY00: \$57,684 Total: \$114,381  
*Prin. Invest.:* R E JOHNSON  
*Tech. Officer:* GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7862 UNIVERSITY OF VIRGINIA 9064**  
 SAFARI 2000: A SOUTHERN AFRICAN REGIONAL SCIENCE INITIATIVE  
 01/08/1999 - 01/31/2001 FY00: \$79,335 Total: \$157,517  
*Prin. Invest.:* C O JUSTICE  
*Tech. Officer:* GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7839 UNIVERSITY OF VIRGINIA 9065**  
 "COLLABORATIVE PARTICIPATION OF SOUTH AFRICAN AIRBORNE VALIDATION PLATFORM IN SAFARI2000"  
 01/04/1999 - 01/14/2001 FY00: \$205,565 Total: \$300,704  
*Prin. Invest.:* R J SWAPP  
*Tech. Officer:* GSFC/M KING  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7856 UNIVERSITY OF VIRGINIA 9066**  
 LAND SURFACE CHARACTERIZATION OF SOUTHERN AFRICAN SAVANNAS: CARBON CYCLING AND SENSITIVITY TO E  
 01/07/1999 - 01/31/2001 FY00: \$189,733 Total: \$434,809  
*Prin. Invest.:* H H SHUGART  
*Tech. Officer:* GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER



## NASA'S UNIVERSITY PROGRAM

<b>NAG 5 8068</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9067</b> SUPERNOVA-INFLUENCED STAR FORMATION 01/27/1999 - 12/31/2000                      FY00: \$40,000                      Total: \$85,000 <i>Prin. Invest.:</i> D A CHEVALIER <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8663</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9075</b> LOW COST TERAHERTZ FREQUENCY MULTIPLIERS FOR SOFIA AND EXPLORER MISSIONS 07/07/1999 - 07/14/2001                      FY00: \$135,217                      Total: \$267,552 <i>Prin. Invest.:</i> T CROWE <i>Tech. Officer:</i> GSFC/G MUCKLOW <i>CASE Category:</i> 45 - ELECTRICAL ENGR
<b>NAG 5 8130</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9068</b> MODELS OF PULSAR NEBULAE (ATP 98) 02/11/1999 - 02/14/2001                      FY00: \$61,800                      Total: \$121,800 <i>Prin. Invest.:</i> R A CHEVALIER <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8670</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9076</b> ESTIMATING ROOT ZONE SOIL MOISTURE AND EXPLORING SCALE ASPECTS OF ITS COUPLING TO THE ATMOSPHERIC 07/08/1999 - 07/14/2001                      FY00: \$115,946                      Total: \$227,404 <i>Prin. Invest.:</i> J D ALBERTSON <i>Tech. Officer:</i> GSFC/M Y WEI <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 8162</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9069</b> LAND COVER AND LAND USE CHANGE PROJECT SCIENTIST S SUPPORT 02/08/1999 - 02/28/2001                      FY00: \$252,985                      Total: \$537,535 <i>Prin. Invest.:</i> C O JUSTICE <i>Tech. Officer:</i> GSFC/A C JANETOS <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 5 8749</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9077</b> TO DEVELOPE A COMPACT, AMBIENT TEMPERATURE 500 GHZ RECEIVER FOR USE IN PASSIVE MICROWAVE REMOTE SEN 08/25/1999 - 03/31/2001                      FY00: \$0                      Total: \$97,000 <i>Prin. Invest.:</i> J L HESLER <i>Tech. Officer:</i> GSFC/J R WANG <i>CASE Category:</i> 31 - ATMOSPHERIC SCIENCE
<b>NAG 5 8232</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9070</b> SUPERNOVA REMNANTS: INTERSTELLAR AND CIRCUMSTELLAR INTER- ACTIONS (ATP98) 02/11/1999 - 02/14/2001                      FY00: \$60,000                      Total: \$120,000 <i>Prin. Invest.:</i> R A CHEVALIER <i>Tech. Officer:</i> GSFC/R J OLIVERSEN <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8838</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9078</b> CENTRAL AFRICAN REGIONAL PROJECT FOR THE ENVIRON MENT: REMOTE SENSING AND GIS SUPPORT ACTIVITIES 09/23/1999 - 09/30/2000                      FY00: \$0                      Total: \$158,271 <i>Prin. Invest.:</i> C O JUSTICE <i>Tech. Officer:</i> GSFC/C J TUCKER <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 8390</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9071</b> COOLING GAS, COLD GAS, & THE DYNAMICAL HISTORY OF CLUSTERS OF GALAXIES (ADP98) 03/05/1999 - 03/14/2000                      FY00: \$0                      Total: \$19,927 <i>Prin. Invest.:</i> C L SARAZIN <i>Tech. Officer:</i> GSFC/D K WEST <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8902</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9079</b> MARTIAN CRATERED HIGHLANDS FIELD CONFERENCE 12/28/1999 - 12/31/2000                      FY00: \$22,000                      Total: \$22,000 <i>Prin. Invest.:</i> A HOWARD <i>Tech. Officer:</i> GSFC/J GRANT <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 8444</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9072</b> LABORATORY SIMULATIONS OF RADIATION EFFECTS ON PLA NETARY SURFACES 04/07/1999 - 05/31/2000                      FY00: \$0                      Total: \$55,000 <i>Prin. Invest.:</i> R A BARAGIOLA <i>Tech. Officer:</i> HQ/J BOYCE <i>CASE Category:</i> 11 - ASTRONOMY	<b>NAG 5 8954</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9080</b> FAR-ULTRAVIOLET STUDIES OF METAL-DEFICIENT BLUE COMPACT DWARF GALAXIES - FUSE 01/24/2000 - 01/31/2001                      FY00: \$54,300                      Total: \$54,300 <i>Prin. Invest.:</i> T X THUAN <i>Tech. Officer:</i> GSFC/G SONNEBORN <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 8585</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9073</b> EXTENDING THE VOCABULARY FOR CROSS-DISCIPLINARY SEARCHING OF EOS DATA 06/24/1999 - 06/30/2001                      FY00: \$78,917                      Total: \$153,917 <i>Prin. Invest.:</i> J C FRENCH <i>Tech. Officer:</i> GSFC/K MOE <i>CASE Category:</i> 22 - COMPUTER SCIENCE	<b>NAG 5 9206</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9081</b> NUMERICAL MAGNETOHYDRODYNAMIC STUDIES OF ACCRETION DISKS (ATP 99) 03/13/2000 - 03/14/2001                      FY00: \$89,834                      Total: \$89,834 <i>Prin. Invest.:</i> J HAWLEY <i>Tech. Officer:</i> GSFC/R OLIVERSEN <i>CASE Category:</i> 11 - ASTRONOMY
<b>NAG 5 8612</b> <b>UNIVERSITY OF VIRGINIA</b> <b>9074</b> TOWARD REAL-TIME ANALYSIS OF TERRESTRIAL CARBON CYCLING 06/11/1999 - 01/31/2000                      FY00: \$0                      Total: \$66,000 <i>Prin. Invest.:</i> W R EMANUEL <i>Tech. Officer:</i> GSFC/D E WICKLAND <i>CASE Category:</i> 39 - ENVIRONMENTAL SCI, OTHER	

**NAG 5 9289 UNIVERSITY OF VIRGINIA 9082**  
 OPERATIONALIZING GOF IN THE MIOMBO REGION & QUESTIONS OF  
 CARBON MIOMBO REGION A SOURCE OR SINK  
 03/27/2000 - 04/30/2001 FY00: \$86,707 Total: \$86,707  
 Prin. Invest.: P V DESANKER  
 Tech. Officer: GSFC/G GUTMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9357 UNIVERSITY OF VIRGINIA 9083**  
 REGIONAL ANALYSIS OF LAND-ATMOSPHERE FEEDBACKS IN SOUTHERN  
 AFRICAN SAVANNAS: A SYNTHESIS ACTIVITIES  
 04/05/2000 - 04/30/2001 FY00: \$181,945 Total: \$181,945  
 Prin. Invest.: H H SHUGART  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9654 UNIVERSITY OF VIRGINIA 9084**  
 PRODUCTION OF DIABATIC HEATING IN THE TROPICAL TROPOSPHERE  
 06/05/2000 - 05/31/2001 FY00: \$72,333 Total: \$72,333  
 Prin. Invest.: J D FUENTES  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9747 UNIVERSITY OF VIRGINIA 9085**  
 INTEGRATING A MANUAL THESAURUS WITH AUTOMATED TERM SUGGES-  
 TION TECHNIQUES FOR CROSS-DISCIPLINARY  
 07/11/2000 - 01/14/2001 FY00: \$82,338 Total: \$82,338  
 Prin. Invest.: J FRENCH  
 Tech. Officer: GSFC/K MOE  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 9758 UNIVERSITY OF VIRGINIA 9086**  
 MOLECULAR ISOTOPIC COMPOSITION OF ORGANIC COMPOUNDS IN  
 ANTARCTIC METEORITES  
 06/28/2000 - 06/30/2001 FY00: \$51,810 Total: \$51,810  
 Prin. Invest.: S MACKO, NONE  
 Tech. Officer: GSFC/M MEYER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9900 UNIVERSITY OF VIRGINIA 9087**  
 ARE THE SCUBA DEEP SURVEY SOURCES STARBURSTS OR AGN?  
 09/06/2000 - 09/14/2001 FY00: \$12,300 Total: \$12,300  
 Prin. Invest.: T X THUAN  
 Tech. Officer: GSFC/R F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1567 UNIVERSITY OF VIRGINIA 9088**  
 MEMBRANE PROTEIN CRYSTALLIZATION SCREENS BASED UPON FUNDA-  
 MENTAL PHENOMENOLOGY OF SOLUTIONS  
 12/22/1998 - 11/30/2002 FY00: \$183,000 Total: \$358,000  
 Prin. Invest.: M C WIENER  
 Tech. Officer: MSFC/B GUYNES  
 CASE Category: 13 - PHYSICS

**NAG 9 823 UNIVERSITY OF VIRGINIA 9089**  
 MICROGRAVITY SIMULATED PROSTATE CELL CULTURE  
 09/22/1995 - 04/03/2000 FY00: \$0 Total: \$743,846  
 Prin. Invest.: L K CHUNG, H E ZHAY, PH.D.  
 Tech. Officer: JSC/N PELLIS  
 CASE Category: 56 - MEDICL

**NAS 1 99098 UNIVERSITY OF VIRGINIA 9090**  
 ANALYTICAL AERONAUTICAL SAFETY SOFTWARE TOOL  
 03/26/1999 - 11/25/2001 FY00: \$242,000 Total: \$472,000  
 Prin. Invest.: J BECHTA-DUGAN, K J SULLIZAN  
 Tech. Officer: LARC/H A ROELANT, LARC/D J PORTER, JR.  
 CASE Category: 49 - ENGINEERING, OTHER

**NAS 3 97190 UNIVERSITY OF VIRGINIA 9091**  
 HOTFGM CYLINDER A COUPLED MICRO MACROSTRUCTURAL THEORY  
 10/29/1997 - 03/01/2000 FY00: \$0 Total: \$157,629  
 Prin. Invest.: M PINDERG, J ABOUDI  
 Tech. Officer: GRC/S ARNOLD  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 237 UNIVERSITY OF VIRGINIA 9092**  
 NASA-VIRGINIA CONSORTIUM OF ENGINEERING & SCIENCE UNIVERSITIES  
 PH.D RESEARCH ASSISTANTSHIP PROGRAM  
 07/16/1996 - 08/31/2000 FY00: \$35,257 Total: \$476,927  
 Prin. Invest.: D CHESTNUTT  
 Tech. Officer: LARC/S E MASSENBERG, LARC/E J PRIOR  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 263 UNIVERSITY OF VIRGINIA 9093**  
 CENTER FOR ADVANCED COMPUTATIONAL TECHNOLOGY MY 1/3  
 08/20/1997 - 12/31/2000 FY00: \$650,000 Total: \$1,725,001  
 Prin. Invest.: A K NOORE  
 Tech. Officer: LARC/K A CANNON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 312 UNIVERSITY OF VIRGINIA 9094**  
 ANALYSIS OF CORRODENTS WITHIN TI-HONEYCOMB/PETI-5 FACESHEET  
 STRUCTURES  
 07/24/1998 - 03/31/1999 FY00: \$0 Total: \$30,000  
 Prin. Invest.: R G KELLY  
 Tech. Officer: LARC/R S PIASCIK  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 1 340 UNIVERSITY OF VIRGINIA 9095**  
 TUNABLE ACOUSTIC LINER INVESTIGATIONS  
 04/30/1999 - 04/30/2000 FY00: \$5,912 Total: \$32,967  
 Prin. Invest.: H G WOOD, 111  
 Tech. Officer: LARC/J W POSEY  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 1 342 UNIVERSITY OF VIRGINIA 9096**  
 ROBUST ADAPTIVE CONTROL IN THE PRESENCE OF UNCERTAINTIES AND  
 FAILURES  
 06/08/1999 - 05/31/2002 FY00: \$50,001 Total: \$77,001  
 Prin. Invest.: G TAO  
 Tech. Officer: LARC/S M JOSHI, LARC/C M BELCASTRO  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 1 361 UNIVERSITY OF VIRGINIA 9097**  
 NONLINEAR IMPEDANCE OF POROUS MATERIALS  
 11/12/1999 - 11/14/2002 FY00: \$52,000 Total: \$52,000  
 Prin. Invest.: W E ZORUMSKI  
 Tech. Officer: LARC/T L PARROTT, LARC/M G JONES  
 CASE Category: 13 - PHYSICS

## NASA'S UNIVERSITY PROGRAM

VIRGINIA

**NCC 2 1093 UNIVERSITY OF VIRGINIA 9098**  
 WHEN ARE THE IMMERSIVE DISPLAYS USEFUL: PERCEPTUAL & TASK  
 CONSIDERATIONS?  
 03/09/1999 - 02/28/2001 FY00: \$171,651 Total: \$296,651  
 Prin. Invest.: D R PROFFITT  
 Tech. Officer: ARC/M K KAISER  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 2 1192 UNIVERSITY OF VIRGINIA 9099**  
 THE TOPOGRAPHY & BASIN DEPOSITS OF THE EQUATORIAL HIGHLANDS  
 08/28/2000 - 08/31/2001 FY00: \$11,000 Total: \$11,000  
 Prin. Invest.: A D HOWARD  
 Tech. Officer: ARC/J M MOORE  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NCC 3 642 UNIVERSITY OF VIRGINIA 9100**  
 SATELLITE TELEMOMOGRAPHY NETWORK EXPERIMENT RESEA RCH  
 PROJECT  
 08/24/1998 - 05/16/1999 FY00: \$0 Total: \$7,186  
 Prin. Invest.: S J  
 Tech. Officer: GRC/R J KERCCZEWSKI  
 CASE Category: 45 - ELECTRICAL ENGR

**NCC 8 171 UNIVERSITY OF VIRGINIA 9101**  
 MODELING PROSTATE CANCER SKELETAL METASTASIS AND GENE  
 THERAPY  
 03/01/1999 - 11/30/2002 FY00: \$171,000 Total: \$294,000  
 Prin. Invest.: L W CHUNG  
 Tech. Officer: MSFC/D R MORRISON  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 1 52187 UNIVERSITY OF VIRGINIA 9102**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/04/1998 - 09/30/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: C T HEROKOVICH  
 Tech. Officer: LARC/J H STORRIES  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NGT 1 52212 UNIVERSITY OF VIRGINIA 9103**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/28/1999 - 06/30/2000 FY00: \$0 Total: \$22,000  
 Prin. Invest.: D A STAACK, J C MCDANREL  
 Tech. Officer: LARC/C E GLASS, LARC/C G MILLER  
 CASE Category: 13 - PHYSICS

**NGT 1 52234 UNIVERSITY OF VIRGINIA 9104**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/26/2000 - 12/31/2000 FY00: \$11,917 Total: \$11,917  
 Prin. Invest.: H G WOOD  
 Tech. Officer: LARC/R H THOMAS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 1 52237 UNIVERSITY OF VIRGINIA 9105**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 04/27/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: C R ELKS  
 Tech. Officer: LARC/P W GOODE, LARC/A T MORRIS  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NGT 1 52244 UNIVERSITY OF VIRGINIA 9106**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 08/07/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: R W KENT  
 Tech. Officer: LARC/L E JONES  
 CASE Category: 49 - ENGINEERING, OTHER

**NGT 1 52247 UNIVERSITY OF VIRGINIA 9107**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 08/01/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  
 Prin. Invest.: J C MCDANIEL JR, D E CECIL  
 Tech. Officer: GSFC/C E GLASS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 3 52315 UNIVERSITY OF VIRGINIA 9108**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 08/01/1996 - 06/30/1999 FY00: -\$4 Total: \$65,996  
 Prin. Invest.: J M HOWE  
 Tech. Officer: GRC/D MONTEGANI  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NGT 5 50062 UNIVERSITY OF VIRGINIA 9109**  
 APPROACHES FOR IMPROVING ACCESS TO NASA'S SCIENTIF  
 08/04/1997 - 06/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J FRENCH  
 Tech. Officer: HQ/A NURRIDIN  
 CASE Category: 41 - AERONAUTICAL ENGR

**NGT 5 50305 UNIVERSITY OF VIRGINIA 9110**  
 USING NOVEL MEMBRANE PROTEIN CRYSTALLIZATION SCREE NS FOR  
 THE STRUCTURE DETERMINATION OF ACHLORIDE  
 07/07/2000 - 06/30/2001 FY00: \$21,112 Total: \$21,112  
 Prin. Invest.: M C WIENER  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT10 52620 UNIVERSITY OF VIRGINIA 9111**  
 TRAINING GRANT UNDER A GRADUATE STUDENT RESEARCHER'S  
 PROGRAM  
 06/22/1999 - 07/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: A MILLS  
 Tech. Officer: KSC/R WHEELER  
 CASE Category: 55 - AGRICULTURE

**NAG 1 1737 VA POLYTECHNIC INST & ST UNIV 9112**  
 DYNAMIC WIND TUNNEL TESTS MY 1/3  
 07/13/1995 - 09/30/1999 FY00: -\$1 Total: \$445,961  
 Prin. Invest.: F H LUTZE  
 Tech. Officer: LARC/S B GRAFTON  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1801 VA POLYTECHNIC INST & ST UNIV 9113**  
 TURBULENCE MEASUREMENTS AND COMPUTATIONS FOR THE PREDIC-  
 TION OF BROADBAND NOISE IN HIGH BYPASS  
 01/30/1996 - 01/31/2000 FY00: -\$1,190 Total: \$336,627  
 Prin. Invest.: W J DEVENPORT, J MOORE  
 Tech. Officer: LARC/J W POSER, LARC/C H GERHOLD  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1851 VA POLYTECHNIC INST & ST UNIV 9114**  
 AIRCRAFT NONLINEAR DYNAMICS STUDIES  
 06/26/1996 - 08/15/2000 FY00: \$0 Total: \$229,642  
*Prin. Invest.:* F H LUTZE, W H MASON  
*Tech. Officer:* LARC/J V FOSTER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1852 VA POLYTECHNIC INST & ST UNIV 9115**  
 MULTIDISCIPLINARY DESIGN INVESTIGATION OF TRUSS- BRACED  
 AIRCRAFT  
 06/27/1996 - 09/15/1999 FY00: -\$1 Total: \$300,000  
*Prin. Invest.:* B CROSSMAN, R K KAPANIA, W H MASON  
*Tech. Officer:* LARC/S C ASBURY, LARC/B L BERRIER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1881 VA POLYTECHNIC INST & ST UNIV 9116**  
 RESIN FILM INFUSION (RFI) PROCESS MODELING FOR LARGE TRANSPORT  
 AIRCRAFT WING STRUCTURES  
 11/22/1996 - 05/15/2000 FY00: \$0 Total: \$437,188  
*Prin. Invest.:* A C LOOS  
*Tech. Officer:* LARC/H B DEXTTER  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 1 1884 VA POLYTECHNIC INST & ST UNIV 9117**  
 EFFICIENT ANALYSIS OF COMPLEX STRUCTURES USING NEURAL  
 NETWORKS  
 12/17/1996 - 09/30/1999 FY00: -\$528 Total: \$102,045  
*Prin. Invest.:* R K KAPANIA  
*Tech. Officer:* LARC/J T WANG  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 1 1895 VA POLYTECHNIC INST & ST UNIV 9118**  
 THE NASA-VIRGINIA TECH COMPOSITE PROGRAM: INVESTIGATION OF  
 COMPOSITE STRUCTURES  
 01/29/1997 - 08/31/2000 FY00: \$0 Total: \$202,273  
*Prin. Invest.:* M W HYER  
*Tech. Officer:* LARC/J H STAMES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1942 VA POLYTECHNIC INST & ST UNIV 9119**  
 TURBULENCE IN HELICOPTER ROTOR FLOWS AND THE MECHANISM OF  
 NOISE PRODUCTION  
 06/04/1997 - 12/31/2000 FY00: \$15,434 Total: \$272,866  
*Prin. Invest.:* W J DEVENPORT  
*Tech. Officer:* LARC/C L BURLEY, LARC/T F BROOKS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 1959 VA POLYTECHNIC INST & ST UNIV 9120**  
 EARTH RADIATION MEASUREMENT SCIENCE MY 1/3  
 08/05/1997 - 08/15/2000 FY00: \$75,851 Total: \$312,685  
*Prin. Invest.:* G L SMITH, J R MAHAN  
*Tech. Officer:* LARC/R B LEE, III, LARC/R L HUFFMAN, JR.  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1973 VA POLYTECHNIC INST & ST UNIV 9121**  
 FORMATION OF IRON NANOPHASES IN POLYMERIC MATRICES VIA SUPER-  
 CRITICAL INFUSION  
 10/20/1997 - 04/30/1999 FY00: -\$1 Total: \$40,001  
*Prin. Invest.:* L T TAYLOR  
*Tech. Officer:* LARC/D M STOAKLEY, LARC/A K ST. CLAIR  
 CASE Category: 12 - CHEMISTRY

**NAG 1 1998 VA POLYTECHNIC INST & ST UNIV 9122**  
 PRINCIPLES OF PIEZOCERAMIC DEVICES MY 1/2  
 02/01/1998 - 01/31/2000 FY00: -\$4,005 Total: \$79,996  
*Prin. Invest.:* D J INMAN  
*Tech. Officer:* LARC/P H MIRICK  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2035 VA POLYTECHNIC INST & ST UNIV 9123**  
 COMPRESSION STRENGTH OF COMPOSITE PRIMARY STRUCTURAL  
 COMPONENTS  
 04/30/1998 - 01/18/2000 FY00: -\$1 Total: \$134,402  
*Prin. Invest.:* E R JOHNSON  
*Tech. Officer:* LARC/J H STARNES, LARC/L E JONES  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2094 VA POLYTECHNIC INST & ST UNIV 9124**  
 INVESTIGATION OF NEXT-GENERATION EARTH RADIATION BUDGET  
 RADIOMETRY  
 07/24/1998 - 10/31/1998 FY00: -\$3,478 Total: \$44,425  
*Prin. Invest.:* J R MAHAN  
*Tech. Officer:* LARC/R B LEE, III, LARC/R L HUFFMAN, JR.  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2106 VA POLYTECHNIC INST & ST UNIV 9125**  
 EVALUATION AND IMPROVEMENT OF EARTH RADIATION BUDGET DATA  
 SETS  
 09/17/1998 - 09/30/2001 FY00: \$222,742 Total: \$436,927  
*Prin. Invest.:* M P HAEFFELIN  
*Tech. Officer:* LARC/D F YOUNG  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2111 VA POLYTECHNIC INST & ST UNIV 9126**  
 AIRPLANE CONTROL ALLOCATION STUDY  
 09/16/1998 - 08/07/2000 FY00: \$0 Total: \$99,501  
*Prin. Invest.:* W C DURHAM  
*Tech. Officer:* LARC/J V FOSTER  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2116 VA POLYTECHNIC INST & ST UNIV 9127**  
 STACKING SEQUENCE DESIGN OPTIMIZATION OF STIFFENED PANELS  
 WITH POSTBUCKLING CONSTRAINTS  
 10/28/1998 - 02/28/1999 FY00: -\$1,452 Total: \$14,936  
*Prin. Invest.:* Z GURDAL, S A RAGON  
*Tech. Officer:* LARC/J H STARNES, JR.  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2128 VA POLYTECHNIC INST & ST UNIV 9128**  
 INVESTIGATION OF NOVEL SPACE-BORNE BROADBAND RADIO METER  
 CONCEPTS  
 01/07/1999 - 10/31/2001 FY00: \$99,149 Total: \$192,487  
*Prin. Invest.:* J R MAHAN  
*Tech. Officer:* LARC/R B LEE, III, LARC/R L HUFFMAN, JR.  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2137 VA POLYTECHNIC INST & ST UNIV 9129**  
 CONTROL OF FAN NOISE FROM TURBOFAN ENGINES USING ADAPTIVE  
 HERSHEY-QUINCKE TUBES, NRA 98-LARC-3  
 01/28/1999 - 12/31/2000 FY00: \$70,641 Total: \$179,377  
*Prin. Invest.:* R A BURDISO  
*Tech. Officer:* LARC/C H GERHOLD, LARC/J W POSEY  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2158**      **VA POLYTECHNIC INST & ST UNIV**      **9130**  
 HYBRID ACTIVE-PASSIVE SYSTEMS FOR CONTROL OF AIRCRAFT INTERIOR NOISE  
 03/09/1999 - 12/31/2001      FY00: \$144,143      Total: \$268,143  
*Prin. Invest.:* C R FULLER  
*Tech. Officer:* LARC/D L PALUMBO  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 1 2190**      **VA POLYTECHNIC INST & ST UNIV**      **9131**  
 EFFICIENT HYBRID ACTUATION USING SOLID-STATE ACTUATORS  
 07/06/1999 - 04/30/2002      FY00: \$0      Total: \$314,423  
*Prin. Invest.:* D J LEO, H H CUDNEY  
*Tech. Officer:* LARC/G C HORNER, LARC/R G REMUS  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 1 2217**      **VA POLYTECHNIC INST & ST UNIV**      **9132**  
 MULTIDISCIPLINARY DESIGN INVESTIGATION OF TRUSS-BRACED WING AIRCRAFT: PHASE 4 (FOLLOW-ON TO 1852)  
 08/18/1999 - 10/31/1999      FY00: -\$121      Total: \$49,964  
*Prin. Invest.:* B GROSSMAN  
*Tech. Officer:* LARC/M D MOORE, LARC/R E MCKINLEY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2246**      **VA POLYTECHNIC INST & ST UNIV**      **9133**  
 CONTROL LAW -- CONTROL ALLOCATION INTERACTION  
 09/17/1999 - 09/30/2000      FY00: \$10,000      Total: \$25,000  
*Prin. Invest.:* W C DURHAM  
*Tech. Officer:* LARC/J B DAVIDSON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2272**      **VA POLYTECHNIC INST & ST UNIV**      **9134**  
 AERODYNAMIC STUDIES RELATED TO THE AEROACOUSTICS OF TILTROTOR BLADES  
 03/24/2000 - 02/28/2003      FY00: \$80,000      Total: \$80,000  
*Prin. Invest.:* W J DAVENPORT  
*Tech. Officer:* LARC/C L BURLEY, LARC/T F BROOKS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2277**      **VA POLYTECHNIC INST & ST UNIV**      **9135**  
 FINITE ELEMENT MODEL UPDATING OF UNCERTAIN SYSTEMS  
 03/08/2000 - 02/28/2003      FY00: \$32,117      Total: \$32,117  
*Prin. Invest.:* R KAPANIA  
*Tech. Officer:* LARC/L G HORTA, LARC/J JUANG  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 1 2281**      **VA POLYTECHNIC INST & ST UNIV**      **9136**  
 AEROELASTIC MODELING & BEHAVIOR OF LIFTING SURFACES INCORPORATING AERODYNAMIC & STRUCTURAL  
 03/21/2000 - 09/30/2000      FY00: \$26,000      Total: \$26,000  
*Prin. Invest.:* L LIBRESCU  
*Tech. Officer:* LARC/W A SILVA  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2286**      **VA POLYTECHNIC INST & ST UNIV**      **9137**  
 ANALYSIS OF COMPOSITE STRUCTURES USING NON-TRADITIONAL METHODS  
 03/30/2000 - 09/30/2000      FY00: \$30,000      Total: \$30,000  
*Prin. Invest.:* R K KAPAUUA, NONE  
*Tech. Officer:* LARC/I S RAJU  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2298**      **VA POLYTECHNIC INST & ST UNIV**      **9138**  
 RESIDUAL STRESS EFFECTS IN ANISOTROPIC COMPOSITE LAMINATES  
 05/24/2000 - 05/15/2003      FY00: \$30,000      Total: \$30,000  
*Prin. Invest.:* M W HYER  
*Tech. Officer:* LARC/D R AMBUR  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2309**      **VA POLYTECHNIC INST & ST UNIV**      **9139**  
 ANALYSIS FOR THE PROGRESSIVE FAILURE RESPONSE OF TEXTILE COMPOSITE FUSELAGE FRAMES  
 06/14/2000 - 06/09/2001      FY00: \$20,000      Total: \$20,000  
*Prin. Invest.:* E R JOHNSON  
*Tech. Officer:* LARC/R L BOITNOTT  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 1 2310**      **VA POLYTECHNIC INST & ST UNIV**      **9140**  
 PUNCTURE-HEALING PROPERTIES OF CARBON NANOTUBE-FILLED IONOMERS  
 07/05/2000 - 07/31/2003      FY00: \$39,890      Total: \$39,890  
*Prin. Invest.:* T C WARD  
*Tech. Officer:* LARC/E J SIOCHI, LARC/T L ST. CLAIR  
*CASE Category:* 12 - CHEMISTRY

**NAG 1 2324**      **VA POLYTECHNIC INST & ST UNIV**      **9141**  
 FORMATION OF METAL NANOPHASES IN POLYMERIC MATRICES VIA SUPERCRITICAL FLUID INFUSION  
 08/24/2000 - 02/28/2001      FY00: \$32,053      Total: \$32,053  
*Prin. Invest.:* L T TAYLOR  
*Tech. Officer:* LARC/T L ST. CLAIR, LARC/E J SIOCHI  
*CASE Category:* 12 - CHEMISTRY

**NAG 1 2325**      **VA POLYTECHNIC INST & ST UNIV**      **9142**  
 FUNDAMENTAL STUDIES OF HQ TUBES WITH MODE MEASUREMENTS  
 08/30/2000 - 08/15/2001      FY00: \$20,000      Total: \$20,000  
*Prin. Invest.:* R A BURDISSO  
*Tech. Officer:* LARC/C H GERHOLD, LARC/J W POSEY  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 2 1180**      **VA POLYTECHNIC INST & ST UNIV**      **9143**  
 DESIGN SPACE EXPLORATION FOR MDO ON A TERAFLIP COMPUTER  
 02/26/1998 - 01/31/2001      FY00: \$35,359      Total: \$102,830  
*Prin. Invest.:* B GROSSMAN, L T WATSON, W H MASON  
*Tech. Officer:* ARC/G H KLOPETER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 2 1292**      **VA POLYTECHNIC INST & ST UNIV**      **9144**  
 NON-PARAMETRIC METHODS FOR AUTOMATED FLIGHT DATA CLASSIFICATION  
 02/12/1999 - 08/31/2000      FY00: \$85,568      Total: \$160,617  
*Prin. Invest.:* M R ANDERSON  
*Tech. Officer:* ARC/J C STALER  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2093**      **VA POLYTECHNIC INST & ST UNIV**      **9145**  
 AN INTEGRATED SYSTEMS APPROACH TOWARDS ACTIVE CONTROL OF THERMO-ACOUSTIC INSTABILITIES  
 12/15/1997 - 10/31/2001      FY00: \$99,546      Total: \$292,803  
*Prin. Invest.:* U VANDSBURGER, W R SAUNDERS, B GANESHAN  
*Tech. Officer:* GRC/J E MAY  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 3 2098 VA POLYTECHNIC INST & ST UNIV 9146**  
 ACTIVE & PASSIVE BLADE VIBRATION CONTROL USING MEMS  
 12/22/1997 - 11/30/2000 FY00: \$99,286 Total: \$292,228  
*Prin. Invest.:* W NG  
*Tech. Officer:* GRC/O MEHMED, GRC/G L STEFKO  
*CASE Category:* 46 - MECHANICAL ENGR

**NAG 3 2100 VA POLYTECHNIC INST & ST UNIV 9147**  
 DURABILITY OF CERAMIC MATRIX COMPOSITES AT HIGH TEMPERATURES:  
 EXPERIMENTAL STUDIES & PRODUCTIVE MO  
 01/06/1998 - 11/19/2001 FY00: \$88,186 Total: \$200,184  
*Prin. Invest.:* W A CURTIN  
*Tech. Officer:* GRC/M H JASKOWIAK  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 3 2184 VA POLYTECHNIC INST & ST UNIV 9148**  
 INVESTIGATION FOR IMPROVED DYNAMIC STAGE CHARACTERISTICS  
 08/03/1998 - 12/01/1999 FY00: \$0 Total: \$49,500  
*Prin. Invest.:* W F O'BRIEN  
*Tech. Officer:* GRC/A OWEN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2191 VA POLYTECHNIC INST & ST UNIV 9149**  
 TRAILING EDGE BLOWING IN INLET GUIDE VANES TO REDUCE NOISE  
 08/14/1998 - 06/22/1999 FY00: \$0 Total: \$70,000  
*Prin. Invest.:* W NG  
*Tech. Officer:* GRC/R P WOODWARD  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 3 2194 VA POLYTECHNIC INST & ST UNIV 9150**  
 AEROACOUSTICS OF SUPERSONIC INLETS AEROACOUSTICS OF SUPER-  
 SONIC INLETS  
 08/21/1998 - 09/30/1999 FY00: \$0 Total: \$75,000  
*Prin. Invest.:* W NG  
*Tech. Officer:* GRC/R P WOODWARD  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 4 204 VA POLYTECHNIC INST & ST UNIV 9151**  
 DIRECT MEASUREMENTS OF SKIN FRICTION ON HIGH-SPEED FLIGHT  
 VEHICLES  
 03/30/2000 - 03/30/2001 FY00: \$75,000 Total: \$75,000  
*Prin. Invest.:* J A SCHETZ  
*Tech. Officer:* DFRG/T T BUI  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 5099 VA POLYTECHNIC INST & ST UNIV 9152**  
 UNDERSTANDING SIGMA NAUGHT BLOOMS AND THEIR EFFECTS ON  
 RADAR ALTIMETERS  
 12/11/1996 - 11/30/1999 FY00: \$0 Total: \$82,000  
*Prin. Invest.:* G E BROWN  
*Tech. Officer:* GSFC/G E KAYNE  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 5 5295 VA POLYTECHNIC INST & ST UNIV 9153**  
 IONOSPHERIC NANOSATELLITE FORMATION (ION-F) SCIENCE  
 06/01/2000 - 05/25/2003 FY00: \$47,100 Total: \$47,100  
*Prin. Invest.:* W SCALES  
*Tech. Officer:* GSFC/J C BRINTON  
*CASE Category:* 13 - PHYSICS

**NAG 5 6539 VA POLYTECHNIC INST & ST UNIV 9154**  
 THE VIRGINIA TECH CENTER FOR ENVIRONMENTAL APPLICATIONS OF  
 REMOTESENSING (CEARS)  
 10/24/1997 - 07/31/1999 FY00: -\$2,117 Total: \$417,139  
*Prin. Invest.:* R H WYNNE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7857 VA POLYTECHNIC INST & ST UNIV 9155**  
 MODELING AND SIMULATION OF FORMATION FLYING  
 09/02/1998 - 11/30/1999 FY00: \$0 Total: \$85,265  
*Prin. Invest.:* C D HALL  
*Tech. Officer:* GSFC/D C FOLTA  
*CASE Category:* 42 - ASTRONAUTICAL ENGR

**NAG 5 8343 VA POLYTECHNIC INST & ST UNIV 9156**  
 FLUID INCLUSION STUDY OF VOLATILES IN SNC METEORITES  
 04/08/1999 - 12/31/2000 FY00: \$29,000 Total: \$71,000  
*Prin. Invest.:* R J BODNAR  
*Tech. Officer:* HQ/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9291 VA POLYTECHNIC INST & ST UNIV 9157**  
 ION-F: A SPACE-BASED TESTBED FOR DISTRIBUTED FORMATION  
 CONTROL USING THE HOKIESAT NANOSATELLITE  
 03/17/2000 - 03/31/2001 FY00: \$47,000 Total: \$47,000  
*Prin. Invest.:* C HALL  
*Tech. Officer:* GSFC/K LUU  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAG 5 9744 VA POLYTECHNIC INST & ST UNIV 9158**  
 LEONARDO MISSION UNIQUE ORBITS  
 06/29/2000 - 12/01/2000 FY00: \$17,250 Total: \$17,250  
*Prin. Invest.:* D FOLTA  
*Tech. Officer:* GSFC/S HUGHES  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NAS 1 99128 VA POLYTECHNIC INST & ST UNIV 9159**  
 ADVANCED MODELING AND ANALYSIS TECHNIQUES FOR ADVANCED  
 BROADBAND DETECTOR DEVELOPMENT  
 07/30/1999 - 07/28/2000 FY00: \$0 Total: \$39,923  
*Prin. Invest.:* J R MAHAN  
*Tech. Officer:* LARC/E KIST, JR.  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 245 VA POLYTECHNIC INST & ST UNIV 9160**  
 AERODYNAMIC INTERACTION EFFECTS OF A HELICOPTER ROTOR AND  
 FUSELAGE  
 10/30/1996 - 01/31/2000 FY00: -\$1 Total: \$253,616  
*Prin. Invest.:* R W BARNWELL, D D BOYD, JR.  
*Tech. Officer:* LARC/S A GORTON, LARC/J D BERRY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 282 VA POLYTECHNIC INST & ST UNIV 9161**  
 HYBRID ACTIVE-PASSIVE SYSTEMS FOR CONTROL OF AIRCRAFT  
 INTERIOR NOISE  
 03/13/1998 - 01/15/1999 FY00: -\$2 Total: \$158,410  
*Prin. Invest.:* C R FULLER  
*Tech. Officer:* LARC/D L PALUMBO  
*CASE Category:* 46 - MECHANICAL ENGR

## NASA'S UNIVERSITY PROGRAM

VIRGINIA

**NCC 1 304**      **VA POLYTECHNIC INST & ST UNIV**      **9162**  
 INVESTIGATION OF THE DEFLECTION RESPONSE OF PIEZOCERAMIC  
 DEVICES  
 06/03/1998 - 09/30/1999      FY00: \$0      Total: \$37,819  
*Prin. Invest.:* M W HYER  
*Tech. Officer:* LARC/S A WISE, LARC/W C VAUGHIN  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NCC 1 344**      **VA POLYTECHNIC INST & ST UNIV**      **9163**  
 INNOVATIVE LINER CONCEPTS  
 06/17/1999 - 09/30/2000      FY00: \$65,578      Total: \$129,300  
*Prin. Invest.:* R H THOMAS  
*Tech. Officer:* LARC/T L PARROTT, LARC/M G JONES  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 346**      **VA POLYTECHNIC INST & ST UNIV**      **9164**  
 A UNIFIED PROGRAM FOR THE FLIGHT DYNAMICS AND AERO SERVOELAS-  
 TICITY OF WHOLE AIRCRAFT  
 06/17/1999 - 06/15/2002      FY00: \$25,000      Total: \$65,000  
*Prin. Invest.:* L MEIROVITCH  
*Tech. Officer:* LARC/M R WAZAK  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 367**      **VA POLYTECHNIC INST & ST UNIV**      **9165**  
 LOW SPEED ROTOR/FUSELAGE INTERACTIONAL AERODYNAMICS  
 01/12/2000 - 10/30/2002      FY00: \$102,681      Total: \$102,681  
*Prin. Invest.:* D D BOYD, R W BARNWELL  
*Tech. Officer:* LARC/H E JONES/Z T APPLIN  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 398**      **VA POLYTECHNIC INST & ST UNIV**      **9166**  
 INTERFACE FINITE ELEMENTS FOR ANALYSIS OF FRACTURE INITIATION &  
 PROGRESSION  
 05/15/2000 - 05/14/2003      FY00: \$22,994      Total: \$22,994  
*Prin. Invest.:* E R JOHNSON  
*Tech. Officer:* LARC/D R AMBUR  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 1 405**      **VA POLYTECHNIC INST & ST UNIV**      **9167**  
 SCIENTIFIC INVESTIGATIONS WITH RADIATION BUDGET DATA  
 08/10/2000 - 08/15/2003      FY00: \$24,315      Total: \$24,315  
*Prin. Invest.:* G L SMITH  
*Tech. Officer:* LARC/R B LEE III, LARC/R L HUFFMAN JR.  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 1 52107**      **VA POLYTECHNIC INST & ST UNIV**      **9168**  
 GRADUATE STUDENT RESEARCHER PROGRAM (GSRP)  
 06/15/1995 - 12/31/1999      FY00: -\$4,224      Total: \$83,777  
*Prin. Invest.:* J L BURT, A M PRESTRUDE  
*Tech. Officer:* LARC/A T POPE, LARC/J R COMSTOCK, JR.  
*CASE Category:* 69 - PSYCHOLOGY, OTHER

**NGT 1 52112**      **VA POLYTECHNIC INST & ST UNIV**      **9169**  
 GRADUATE STUDENT RESEARCHER PROGRAM  
 06/19/1995 - 06/30/2000      FY00: \$12,000      Total: \$110,000  
*Prin. Invest.:* M W HYER  
*Tech. Officer:* LARC/J H STARNES, JR.  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 1 52145**      **VA POLYTECHNIC INST & ST UNIV**      **9170**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 07/11/1996 - 08/14/1999      FY00: -\$1      Total: \$66,000  
*Prin. Invest.:* D M MOORE, PH.D.  
*Tech. Officer:* LARC/R A HATHAWAY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52155**      **VA POLYTECHNIC INST & ST UNIV**      **9171**  
 NASA MDA FELLOWSHIP PROGRAM MDA FELLOWSHIP PROGRAM  
 01/24/1997 - 05/15/1999      FY00: -\$3,184      Total: \$377,746  
*Prin. Invest.:* B GROSSMAN  
*Tech. Officer:* LARC/J BARTHELEMY  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 1 52174**      **VA POLYTECHNIC INST & ST UNIV**      **9172**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/29/1997 - 08/31/2000      FY00: \$12,000      Total: \$66,000  
*Prin. Invest.:* J A NEWMAN  
*Tech. Officer:* LARC/R S PIASCLK  
*CASE Category:* 49 - ENGINEERING, OTHER

**NGT 1 52184**      **VA POLYTECHNIC INST & ST UNIV**      **9173**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 05/12/1998 - 06/30/2001      FY00: \$22,000      Total: \$54,000  
*Prin. Invest.:* J BURTON  
*Tech. Officer:* LARC/J M SEATON  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 1 52202**      **VA POLYTECHNIC INST & ST UNIV**      **9174**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/01/1998 - 06/30/2000      FY00: \$12,000      Total: \$44,000  
*Prin. Invest.:* J R MOHAN  
*Tech. Officer:* LARC/M HENDERSON  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NGT 1 52224**      **VA POLYTECHNIC INST & ST UNIV**      **9175**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 09/27/1999 - 08/31/2001      FY00: \$26,250      Total: \$32,000  
*Prin. Invest.:* G J OGLE  
*Tech. Officer:* LARC/J M SEATON  
*CASE Category:* 22 - COMPUTER SCIENCE

**NGT 1 52226**      **VA POLYTECHNIC INST & ST UNIV**      **9176**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 12/20/1999 - 12/31/2000      FY00: \$22,000      Total: \$22,000  
*Prin. Invest.:* A C LOOS  
*Tech. Officer:* LARC/N J JOHNSTON  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NGT 1 52246**      **VA POLYTECHNIC INST & ST UNIV**      **9177**  
 TRAINING GRANT - ADAPTIVE SYSTEM IDENTIFICATION AND CONTROL  
 TECHNIQUES FOR STRUCTURAL NOISE REDUC-  
 08/25/2000 - 06/14/2001      FY00: \$12,000      Total: \$12,000  
*Prin. Invest.:* M AHMODEON  
*Tech. Officer:* LARC/D L PALOMBO  
*CASE Category:* 49 - ENGINEERING, OTHER

## WASHINGTON

## NASA'S UNIVERSITY PROGRAM

**NGT 1 52248 VA POLYTECHNIC INST & ST UNIV 9178**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 08/01/2000 - 06/30/2001 FY00: \$10,000 Total: \$10,000  
*Prin. Invest.:* A M SMITH, J R MAHAN  
*Tech. Officer:* LARC/K J PRIESTLEY, LARC/R B LEE III  
*CASE Category:* 46 - MECHANICAL ENGR

**NGT 5 30198 VA POLYTECHNIC INST & ST UNIV 9179**  
 ESTIMATING FOREST VEGETATION BIOMASS USING AIRBORN E LIDAR  
 MEASUREMENTS STUDENT: SORIN POPESCU  
 08/24/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* R H WYNNE  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 50260 VA POLYTECHNIC INST & ST UNIV 9180**  
 A SHARED AUGMENTED REALITY SYSTEM FOR COMMUNICATIO N ACROSS  
 ENVIRONMENTS STUDENT: WILLIAM STADERMAN  
 07/07/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* B M KLEINER  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50262 VA POLYTECHNIC INST & ST UNIV 9181**  
 SHORT-TERM TIME COURSE SKELETAL RESPONSES TO HIGH INTENSITY  
 PHYSICAL ACTIVITY  
 07/08/1999 - 06/30/2000 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* W HERBERT  
*Tech. Officer:* GSFC/L SMITH  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2302 VIRGINIA COMMONWEALTH UNIVERSITY 9182**  
 ELECTRIC FIELD-MEDIATED PROCESSING OF POLYMERS  
 06/07/2000 - 01/14/2001 FY00: \$38,512 Total: \$38,512  
*Prin. Invest.:* G E WNEK, T W HAAS, G L BOWLIN  
*Tech. Officer:* LARC/J S HARRISON, LARC/E J SIOCHI  
*CASE Category:* 43 - CHEMICAL ENGR

**NAG 8 1276 VIRGINIA COMMONWEALTH UNIVERSITY 9183**  
 STUDIES ON POLYMERIZATION AND NANOPARTICLE COMPOSITES  
 04/25/1996 - 04/30/2000 FY00: \$35,417 Total: \$340,000  
*Prin. Invest.:* S EL-SHALL  
*Tech. Officer:* MSFC/D R WOODARD, MSFC/B G PENN  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1484 VIRGINIA COMMONWEALTH UNIVERSITY 9184**  
 R/S GAS PHASE POLYMERIZATION AND NUCLEATION EXPERIMENTS IN  
 MICROGRAVITY  
 02/01/1998 - 01/31/2002 FY00: \$120,000 Total: \$316,000  
*Prin. Invest.:* M S EL-SHALL  
*Tech. Officer:* MSFC/P M DOTY  
*CASE Category:* 12 - CHEMISTRY

**NAS 9 19539 VIRGINIA COMMONWEALTH UNIVERSITY 9185**  
 NEUROLAB EXPERIMENT DOCUMENT FOR E-049  
 02/22/1996 - 09/30/2000 FY00: \$119,438 Total: \$915,438  
*Prin. Invest.:* D ECKBURG  
*Tech. Officer:* JSC/A LEE  
*CASE Category:* 56 - MEDICL

**NAS 9 19541 VIRGINIA COMMONWEALTH UNIVERSITY 9186**  
 AUTONOMIC MECHANISMS DURING PROLONGED WEIGHTLESSNE SS  
 03/14/1996 - 09/30/2000 FY00: \$115,519 Total: \$749,668  
*Prin. Invest.:* H B CHERMSIDE  
*Tech. Officer:* JSC/C M BUNTIN  
*CASE Category:* 54 - ENVIRONMENTAL BIOLOGY

**NCC 3 645 VIRGINIA COMMONWEALTH UNIVERSITY 9187**  
 INVESTIGATION OF BOUNDARY LAYER DEVELOPMENT I LOW- PRESSURE  
 TURBINE STAGES  
 09/03/1996 - 10/31/2000 FY00: \$92,810 Total: \$127,310  
*Prin. Invest.:* D J DORNEY  
*Tech. Officer:* GRC/D E ASHPIS  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 9 87 VIRGINIA COMMONWEALTH UNIVERSITY 9188**  
 MEDICAL INFORMANTICS AND TECH APPLICATIONS CONSORTIUM  
 07/01/1999 - 06/30/2002 FY00: \$2,493,315 Total: \$3,243,315  
*Prin. Invest.:* R C MERRELL  
*Tech. Officer:* JSC/S L POOL  
*CASE Category:* 11 - ASTRONOMY

## WASHINGTON

**NAG 5 2908 CENTRAL WASHINGTON UNIVERSITY 9189**  
 KINEMATICS AND DYNAMICS OF CONTINENTAL LITHOSPHERE IN THE  
 EASTERN CALIF. SHEARZONE: ETC...  
 03/14/1995 - 03/14/2000 FY00: \$0 Total: \$382,404  
*Prin. Invest.:* M MILLER  
*Tech. Officer:* GSFC/B G BILLS  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7672 CENTRAL WASHINGTON UNIVERSITY 9190**  
 FUNDING FOR VARIATIONS IN SEA LEVEL CHANGE ALONG THE CASCADIA  
 MARGIN. (SENH98-0083)  
 09/01/1998 - 12/31/2000 FY00: \$145,108 Total: \$257,208  
*Prin. Invest.:* M MILLER  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 2 6041 EASTERN WASHINGTON UNIV 9191**  
 THE SCIENCE OLYMPIAD PROJECT  
 02/08/2000 - 01/31/2001 FY00: \$25,000 Total: \$25,000  
*Prin. Invest.:* R SOLTERO  
*Tech. Officer:* ARC/D JAMES  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 6034 HERITAGE COLLEGE 9192**  
 ENHANCING SCIENCE TEACHER TRAINING USING WATER RES OURCES &  
 GLOBE  
 06/10/1999 - 01/31/2001 FY00: \$172,991 Total: \$330,619  
*Prin. Invest.:* P T ALEXANDER  
*Tech. Officer:* ARC/B J COLLINS, ARC/G S LEE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER



**NAG13 99027** **HERITAGE COLLEGE** **9193**  
 APPLICATION OF REMOTELY SENSED INFORMATION TO ENVIRONMENTAL PROBLEMS OF HISPANICS AND NATIVE AM  
 09/08/1999 - 09/26/2001 FY00: \$47,000 Total: \$146,692  
 Prin. Invest.: J W FALCO  
 Tech. Officer: SSC/R TRAVIS  
 CASE Category: 62 - PSYCHOLOGY SOCIAL ASPECTS

**NAG 5 6445** **NORTHWEST INDIAN COLLEGE** **9194**  
 PACE AWARD-SEAQUEST PHASE II PROGRAM  
 10/24/1997 - 09/30/1999 FY00: \$0 Total: \$197,840  
 Prin. Invest.: K YAMAMOTO  
 Tech. Officer: GSFC/STOUTSENBERGER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 423** **NORTHWEST INDIAN COLLEGE** **9195**  
 ASSESSING AGRICULTURAL LAND CONVERSION IMPACTS TO TRIBAL FISHERIES USING NASA SATELLITE IMAGERY  
 09/13/1999 - 08/31/2000 FY00: \$0 Total: \$77,289  
 Prin. Invest.: G BLEDSOE  
 Tech. Officer: GSFC/M JASINSKI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6303** **UNIVERSITY OF PUGET SOUND** **9196**  
 PHOTOSYNTHESIS AND IRON TRANSFORMATION IN MATS  
 10/06/1997 - 11/30/1999 FY00: \$0 Total: \$112,778  
 Prin. Invest.: D PIERSON  
 Tech. Officer: GSFC/M A MEYER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 1 1803** **UNIVERSITY OF WASHINGTON** **9197**  
 WAVE DYNAMICS AND TRANSPORT IN THE STRATOSPHERE  
 02/08/1996 - 06/30/1999 FY00: -\$3,930 Total: \$361,532  
 Prin. Invest.: J R HOLTON  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 1877** **UNIVERSITY OF WASHINGTON** **9198**  
 COUPLING SATELLITE AND GROUND-BASED INSTRUMENT TO MAP CLIMATE FORCING BY ANTHROPOGENIC AEROSOLS  
 11/13/1996 - 08/15/1999 FY00: \$0 Total: \$158,469  
 Prin. Invest.: R J CHARLSON  
 Tech. Officer: LARC/D M WINKER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2055** **UNIVERSITY OF WASHINGTON** **9199**  
 STRUCTURAL DESIGN METHODOLOGY BASED ON CONCEPTS OF UNCERTAINTY  
 05/08/1996 - 06/30/2000 FY00: \$0 Total: \$201,523  
 Prin. Invest.: K Y LIN  
 Tech. Officer: LARC/W J STROUD  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 1 2072** **UNIVERSITY OF WASHINGTON** **9200**  
 COORD'D PARAMETERIZATION DEV & LG-EDDY SIMULATION FOR MARINE & ARCTIC CLOUD-TOPPED BOUNDARY LAYERS  
 06/12/1998 - 03/31/2001 FY00: \$78,000 Total: \$217,000  
 Prin. Invest.: C S BRETHERTON  
 Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2079** **UNIVERSITY OF WASHINGTON** **9201**  
 AIRBORNE STUDIES IN THE ARCTIC IN SUPPORT OF FIRE III  
 06/12/1998 - 03/11/2001 FY00: \$196,000 Total: \$695,064  
 Prin. Invest.: P V HOBBS, D A HEGG  
 Tech. Officer: LARC/D S MCDUGAL, LARC/J RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2193** **UNIVERSITY OF WASHINGTON** **9202**  
 DYNAMICAL COUPLING OF STRATOSPHERE & TROPOSPHERE  
 05/12/1999 - 03/30/2002 FY00: \$116,609 Total: \$242,470  
 Prin. Invest.: J R HOLTON  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 1 2200** **UNIVERSITY OF WASHINGTON** **9203**  
 COUPLING SATELLITE AND GROUND-BASED INSTRUMENTS TO MAP CLIMATE FORCING BY ANTHROPOGENIC AEROSOLS  
 06/04/1999 - 08/15/2000 FY00: \$0 Total: \$77,063  
 Prin. Invest.: R J CHARLSON  
 Tech. Officer: LARC/C A HOSTELER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2296** **UNIVERSITY OF WASHINGTON** **9204**  
 PROBABILISTIC STRUCTURAL INSPECTION OPTIMIZATION WITH BAYESIAN UPDATING OF DAMAGE CHARACTERISTICS  
 06/01/2000 - 06/30/2002 FY00: \$58,000 Total: \$58,000  
 Prin. Invest.: K Y LIN  
 Tech. Officer: LARC/W J STROUD, LARC/I S RAJU  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 2 1157** **UNIVERSITY OF WASHINGTON** **9205**  
 PRESSURE SENSITIVE PAINT: IMPROVED QUALITY CONTROL & REFERNCING  
 08/27/1997 - 01/14/2000 FY00: \$0 Total: \$372,000  
 Prin. Invest.: M P GOUTERMAN  
 Tech. Officer: ARC/J H BELL, ARC/E T SCHAIRER  
 CASE Category: 12 - CHEMISTRY

**NAG 2 6039** **UNIVERSITY OF WASHINGTON** **9206**  
 EVO-DEVO SUPPORT  
 12/03/1999 - 01/31/2000 FY00: \$13,000 Total: \$13,000  
 Prin. Invest.: A O DENNIS  
 Tech. Officer: ARC/R D MACELROY, ARC/M AVERNER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1837** **UNIVERSITY OF WASHINGTON** **9207**  
 PHORETIC AND RADIMEDTRIC FORCE MEASUREMENT ON MICROPARTICLES UNDER MICROGRAVITY CONDITIONS  
 04/22/1996 - 09/30/2000 FY00: \$73,000 Total: \$320,000  
 Prin. Invest.: E J DAVIS  
 Tech. Officer: GRC/J S LING, GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 1865** **UNIVERSITY OF WASHINGTON** **9208**  
 INDIUM MONO-ION OSCILLATOR II  
 07/23/1996 - 01/01/2001 FY00: \$130,000 Total: \$450,000  
 Prin. Invest.: W NAGOURNEY, M DEHMELT  
 Tech. Officer: GRC/B S SINGH  
 CASE Category: 13 - PHYSICS

**NAG 3 2379 UNIVERSITY OF WASHINGTON 9209**  
 BUOYANCY-DRIVEN INSTABILITIES IN SINGLE-BUBBLE SONOLUMINES-  
 CENCE (REF.# 123814)  
 04/04/2000 - 11/30/2003 FY00: \$85,000 Total: \$85,000  
 Prin. Invest.: T J MATULA  
 Tech. Officer: GRC/N R HALL  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 3 2455 UNIVERSITY OF WASHINGTON 9210**  
 PRESSURE SENSITIVE (PSP) FOR TWO SENSOR LIFETIME MEASUREMENT  
 OF PRESSURE AND TEMPERATURE  
 06/07/2000 - 09/30/2002 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: D GOUTERMAN  
 Tech. Officer: GRC/T BENCIC  
 CASE Category: 12 - CHEMISTRY

**NAG 5 2767 UNIVERSITY OF WASHINGTON 9211**  
 THE ACCRETION AND SPECTRUM OF U GEM IN QUIESCENCE  
 10/26/1994 - 11/14/1999 FY00: \$0 Total: \$28,296  
 Prin. Invest.: P SZKODY  
 Tech. Officer: GSFC/N WHITE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 2793 UNIVERSITY OF WASHINGTON 9212**  
 ASTROPHYSICS OF COSMIC EVOLUTION  
 11/21/1994 - 08/31/1999 FY00: \$0 Total: \$387,500  
 Prin. Invest.: C J HOGAN  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3023 UNIVERSITY OF WASHINGTON 9213**  
 THE EVOLUTION OF GALAXIES AND CLUSTERS OF GALAXIES  
 10/02/1995 - 09/30/2000 FY00: \$0 Total: \$270,000  
 Prin. Invest.: G R LAKE  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3078 UNIVERSITY OF WASHINGTON 9214**  
 MEASURING SURFACE TOPOGRAPHY OF ICE SHEETS: A COMPREHEN-  
 SIVE STUDY  
 09/25/1995 - 09/30/1998 FY00: -\$114 Total: \$62,686  
 Prin. Invest.: D P WINEBRENNER, NONE  
 Tech. Officer: GSFC/R A BINDSCHADLER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 3121 UNIVERSITY OF WASHINGTON 9215**  
 A STUDY OF MAGNETIC ACCRETION IN VV PUP AND BL HYI  
 10/18/1995 - 10/31/2000 FY00: \$0 Total: \$20,346  
 Prin. Invest.: P SZKODY  
 Tech. Officer: GSFC/R OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3170 UNIVERSITY OF WASHINGTON 9216**  
 POLAR ULTRAVIOLET IMAGING DATA ANALYSIS  
 02/22/1998 - 12/31/1999 FY00: \$0 Total: \$1,880,275  
 Prin. Invest.: G K PARKS  
 Tech. Officer: GSFC/R A HOFFMAN  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NAG 5 3292 UNIVERSITY OF WASHINGTON 9217**  
 ACCRETION MONITORING DURING THE SUPERCYCLE OF V1159 ORI  
 07/17/1998 - 01/14/1999 FY00: -\$277 Total: \$24,471  
 Prin. Invest.: P SZKODY  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 3345 UNIVERSITY OF WASHINGTON 9218**  
 SPACE SPECTROSCOPY OF THE WHITE DWARFS IN CATAclysmic VARI-  
 ABLES: PROBES OF ACCRETION PROCESSES.....  
 08/13/1998 - 08/14/2000 FY00: \$0 Total: \$99,837  
 Prin. Invest.: P SZKODY  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4105 UNIVERSITY OF WASHINGTON 9219**  
 TORQUE FLUCTUATIONS IN SMC X-1  
 04/18/1997 - 12/31/1999 FY00: \$0 Total: \$40,000  
 Prin. Invest.: P E BOYNTON  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4175 UNIVERSITY OF WASHINGTON 9220**  
 ESTIMATING ALBEDO & SUMMER ICE MELT WITH RGPS PROD  
 03/19/1997 - 06/30/2000 FY00: \$0 Total: \$155,148  
 Prin. Invest.: R W LINDSAY  
 Tech. Officer: GSFC/R H THOMAS  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 4176 UNIVERSITY OF WASHINGTON 9221**  
 USE OF RADARSAT DATA TO ESTIMATE SEA-ICE MELTING & ESTIMATE  
 FRESH WATER FLUX TO THE ARCTIC OCEAN  
 03/24/1997 - 12/31/1999 FY00: \$0 Total: \$193,979  
 Prin. Invest.: S MARTIN  
 Tech. Officer: GSFC/R H THOMAS  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 4242 UNIVERSITY OF WASHINGTON 9222**  
 A THEORETICAL STUDY OF PROCESSES DRIVING THE FORMA  
 04/17/1997 - 04/14/2001 FY00: \$0 Total: \$204,872  
 Prin. Invest.: T QUIN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4375 UNIVERSITY OF WASHINGTON 9223**  
 POLAR EXCHANGE AT THE SEA SURFACE  
 06/11/1997 - 05/31/2001 FY00: \$349,991 Total: \$2,914,703  
 Prin. Invest.: D A ROTHROCK  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4473 UNIVERSITY OF WASHINGTON 9224**  
 INTERPLANETARY DUST  
 06/02/1997 - 03/14/2001 FY00: \$0 Total: \$552,000  
 Prin. Invest.: D E BROWNLEE  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4540 UNIVERSITY OF WASHINGTON 9225**  
 THERMAL HISTORY OF LUNAR CRUSTAL ROCKS  
 05/06/1997 - 12/14/2000 FY00: \$34,000 Total: \$131,000  
 Prin. Invest.: D S MCCALLUM  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4630 UNIVERSITY OF WASHINGTON 9226**  
 AEROSOL CONCENTRATIONS AND LARGE SCALE CLOUD DISTR  
 BOUNDARY LAYER  
 05/21/1997 - 01/31/2000 FY00: \$0 Total: \$121,297  
 Prin. Invest.: M B BAKER  
 Tech. Officer: GSFC/M CHOU  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4681 UNIVERSITY OF WASHINGTON 9227**  
 ENERGY DISTRIBUTION WITHIN THE TERRESTRIAL MAGNETO WITH  
 NUMERICAL MODELS  
 06/17/1997 - 03/31/2000 FY00: \$0 Total: \$105,136  
 Prin. Invest.: D MCCARTHY  
 Tech. Officer: GSFC/J GREBOWSKY  
 CASE Category: 13 - PHYSICS

**NAG 5 4686 UNIVERSITY OF WASHINGTON 9228**  
 REMOTE SENSING OF MAGNETOSPHERIC STRUCTURE USING ( STP  
 PARTICLE AND FIELD DATA  
 06/05/1997 - 05/31/1999 FY00: \$0 Total: \$80,422  
 Prin. Invest.: D C WHIPPLE  
 Tech. Officer: GSFC/J GREBOWSKY  
 CASE Category: 13 - PHYSICS

**NAG 5 4712 UNIVERSITY OF WASHINGTON 9229**  
 TITLE: THE REGIONAL AMAZON MODEL SYNOPTIC SCALE H  
 BIOGEOCHEMICAL CYCLES FROM EOS (EOSRAM)  
 06/23/1997 - 06/30/2001 FY00: \$162,000 Total: \$1,169,956  
 Prin. Invest.: J RICHEY  
 Tech. Officer: GSFC/A C JANETOS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4739 UNIVERSITY OF WASHINGTON 9230**  
 RADIATIVE TRANSFER IN SNOW TERRAIN FOR APPLICATION REMOTE  
 SENSING  
 06/17/1997 - 12/14/2000 FY00: \$0 Total: \$106,208  
 Prin. Invest.: L TSANG  
 Tech. Officer: GSFC/A T CHANG  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4791 UNIVERSITY OF WASHINGTON 9231**  
 MONITORING THE ACCRETION OF TWO OLD NOVAE  
 06/17/1997 - 12/31/2000 FY00: \$0 Total: \$5,000  
 Prin. Invest.: P SZKODY  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4795 UNIVERSITY OF WASHINGTON 9232**  
 TRMM VALIDATION: INTEGRATION OF TRMM SATELLITE AN DATA TO  
 DETERMINE TROPICAL HEATING  
 09/08/1997 - 03/15/2001 FY00: \$232,500 Total: \$806,179  
 Prin. Invest.: R A HOUZE, JR.  
 Tech. Officer: GSFC/R W LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 5183 UNIVERSITY OF WASHINGTON 9233**  
 DROPPS: DISTRIBUTION AND ROLE OF PARTICLES IN THE POLAR SUMMER  
 MESOSPHERE  
 03/13/1998 - 03/15/2001 FY00: -\$17,263 Total: \$168,353  
 Prin. Invest.: R H HOLZWORTH  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5190 UNIVERSITY OF WASHINGTON 9234**  
 ATMOSPHERIC LIGHTNING ATMOSPHERIC LIGHTNING  
 04/16/1998 - 04/20/2001 FY00: \$61,700 Total: \$201,960  
 Prin. Invest.: M MCCARTHY  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5294 UNIVERSITY OF WASHINGTON 9235**  
 IONOSPHERIC NANOSATELLITE FORMATION (ION-F) SCIENCE  
 06/01/2000 - 05/25/2003 FY00: \$20,300 Total: \$20,300  
 Prin. Invest.: J D SAHR  
 Tech. Officer: GSFC/J C BRINTON  
 CASE Category: 13 - PHYSICS

**NAG 5 6067 UNIVERSITY OF WASHINGTON 9236**  
 IMPACT OF FOREST CLEARCUTTING IN THE PACIFIC NORTH OD EVENTS  
 07/28/1997 - 04/30/2001 FY00: \$56,000 Total: \$255,000  
 Prin. Invest.: A GILLESPIE  
 Tech. Officer: GSFC/H V FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6101 UNIVERSITY OF WASHINGTON 9237**  
 CLIMATE PROCESSES OVER THE OCEAN  
 07/24/1997 - 07/31/2001 FY00: \$282,000 Total: \$1,674,000  
 Prin. Invest.: D HARTMANN  
 Tech. Officer: GSFC/J A CURRAN  
 CASE Category: 33 - OCEANOGRAPHY

**NAG 5 6244 UNIVERSITY OF WASHINGTON 9238**  
 MAGNETOSHEATH/IONOSPHERIC COUPLING IN THE CUSP/CLE  
 08/21/1997 - 05/31/2000 FY00: \$0 Total: \$159,000  
 Prin. Invest.: D M WINGLEE  
 Tech. Officer: GSFC/M M MELLOTT  
 CASE Category: 13 - PHYSICS

**NAG 5 6297 UNIVERSITY OF WASHINGTON 9239**  
 UNIVERSITY OF WASHINGTON - RESEARCH EARTH SYSTEM S  
 09/15/1997 - 08/31/2000 FY00: \$75,000 Total: \$225,000  
 Prin. Invest.: J M DECOSMO  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6328 UNIVERSITY OF WASHINGTON 9240**  
 PLASMODESMATA AND THE CONTROL OF GRAVITROPISM  
 09/11/1997 - 09/30/2001 FY00: \$0 Total: \$65,000  
 Prin. Invest.: D CLELAND  
 Tech. Officer: GSFC/M AVERNER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 6386 UNIVERSITY OF WASHINGTON 9241**  
 ICE THICKNESS DISTRIBUTION SAMPLING TEST  
 10/07/1997 - 09/30/1999 FY00: -\$217 Total: \$147,513  
 Prin. Invest.: D ROTHROCK  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6463 UNIVERSITY OF WASHINGTON 9242**  
 BROADBAND INFRARED THERMOMETER MEASUREMENTS FOR MO DIS  
 VALUATION  
 10/14/1997 - 09/30/2001 FY00: \$209,576 Total: \$626,584  
 Prin. Invest.: A T JESSUP  
 Tech. Officer: GSFC/D O STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6493 UNIVERSITY OF WASHINGTON 9243**  
 VALIDATION OF RADARSAT GEOPHYSICAL PROCESSOR SYSTEMS PROD-  
 UCTS  
 10/27/1997 - 09/30/2001 FY00: \$131,563 Total: \$366,447  
 Prin. Invest.: R LINDSAY  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6505 UNIVERSITY OF WASHINGTON 9244**  
 ESTIMATION OF FLOOD HAZARDS THROUGH REMOTE SENSING AND  
 MODELING (SENH 06-0114, LETTENMAIR AND WOO)  
 10/24/1997 - 10/31/2000 FY00: \$60,000 Total: \$152,500  
 Prin. Invest.: D LETTENMAIR  
 Tech. Officer: GSFC/H FREY  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6626 UNIVERSITY OF WASHINGTON 9245**  
 CODES TO ENABLE DIRECT SIMULATION OF SOLAR SYSTEM FORMATION.  
 11/17/1997 - 11/14/2000 FY00: \$156,720 Total: \$451,354  
 Prin. Invest.: G LAKE  
 Tech. Officer: GSFC/J FISCHER  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6688 UNIVERSITY OF WASHINGTON 9246**  
 A CONTINUED STUDY OF ACCRETION IN MAGNETIC SYSTEMS WITH  
 LARGE RATIOS OF SOFT/HARD X-RAYS  
 12/01/1997 - 10/31/2000 FY00: \$0 Total: \$11,520  
 Prin. Invest.: P SZKODY  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6819 UNIVERSITY OF WASHINGTON 9247**  
 SATELLITE OBSERVATIONS OF ICE SHEET CLIMATE VARIATIONS ON  
 DECADEAL TIME SCALES  
 01/08/1998 - 12/31/2000 FY00: \$132,767 Total: \$339,466  
 Prin. Invest.: D WINEBRENNER  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6885 UNIVERSITY OF WASHINGTON 9248**  
 A HIGH-RESOLUTION SURVEY OF THE DISK OF M31 - ROSAT PROPOSAL  
 02/06/1998 - 04/30/1999 FY00: \$0 Total: \$6,475  
 Prin. Invest.: E MAGNIER  
 Tech. Officer: GSFC/R PETRE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6894 UNIVERSITY OF WASHINGTON 9249**  
 SATELLITE STUDIES OF THE ICE COVERS OF THE OKHOTSK & SIBERIAN  
 SHELF SEAS  
 01/16/1998 - 12/31/2000 FY00: \$0 Total: \$162,550  
 Prin. Invest.: S MARTIN  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6924 UNIVERSITY OF WASHINGTON 9250**  
 GRANT  
 02/04/1998 - 01/31/2001 FY00: \$0 Total: \$478,269  
 Prin. Invest.: G PARKS  
 Tech. Officer: GSFC/M HESSE  
 CASE Category: 13 - PHYSICS

**NAG 5 6942 UNIVERSITY OF WASHINGTON 9251**  
 IMPROVING THE LUNAR LASER-RANGING TEST OF THE STRO NG EQUIV-  
 ALENCE PRINCIPLE  
 02/10/1998 - 07/31/2000 FY00: \$0 Total: \$42,000  
 Prin. Invest.: J H GUNDLACH  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7054 UNIVERSITY OF WASHINGTON 9252**  
 GRAVITATIONAL MICROLENSING  
 02/27/1998 - 09/30/1999 FY00: \$0 Total: \$60,000  
 Prin. Invest.: C W STUBBS  
 Tech. Officer: GSFC/H HASAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7090 UNIVERSITY OF WASHINGTON 9253**  
 WAVE DYNAMICS AND TRANSPORT IN THE MIDDLE ATMOSPHERE (UARS)  
 02/24/1998 - 02/28/2001 FY00: \$125,469 Total: \$297,883  
 Prin. Invest.: D R HOLTON  
 Tech. Officer: GSFC/A DOUGLASS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7114 UNIVERSITY OF WASHINGTON 9254**  
 WIND DATA ANALYSIS USING THE 3-D INSTRUMENT  
 03/31/1998 - 03/31/2001 FY00: \$112,000 Total: \$392,000  
 Prin. Invest.: G PARKS  
 Tech. Officer: GSFC/K OGILVIE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 7278 UNIVERSITY OF WASHINGTON 9255**  
 XTE PROPOSAL - THE OUTBURST CYCLE OF V803 CEN  
 04/15/1998 - 04/30/2001 FY00: \$0 Total: \$10,353  
 Prin. Invest.: P SZKODY  
 Tech. Officer: GSFC/J SWANK  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7300 UNIVERSITY OF WASHINGTON 9256**  
 EVALUATION OF HYDROLOGIC CONTROLS ON CATCHMENT SCALE  
 ENERGY & MOISTURE FLUXES  
 05/27/1998 - 04/30/2001 FY00: \$18,185 Total: \$107,072  
 Prin. Invest.: D LETTENMAIR  
 Tech. Officer: GSFC/D WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7330 UNIVERSITY OF WASHINGTON 9257**  
 XTE PROPOSAL - TIMING THE X-RAY SOURCE IN NCG 6652 : THE REMAINING LUMINOUS GLOBULAR CLUSTER  
 04/24/1998 - 04/30/2001 FY00: \$0 Total: \$20,200  
 Prin. Invest.: B MARGON  
 Tech. Officer: GSFC/L KALUZIENSKI  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7495 UNIVERSITY OF WASHINGTON 9258**  
 MAPPING THE SPATIAL DISTRIBUTION AND TIME EVOLUTION OF SNOW-WATER EQUIVALENT WITH PASSIVE MICROWAVE  
 06/29/1998 - 09/14/2001 FY00: \$0 Total: \$350,000  
 Prin. Invest.: L TSANG  
 Tech. Officer: GSFC/ET ENGMAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7526 UNIVERSITY OF WASHINGTON 9259**  
 EVALUATION OF OCEANIC COOL-SKIN AND WARM LAYER MODELS USING LONG-TERM MEASUREMENTS  
 06/08/1998 - 12/31/2000 FY00: \$118,000 Total: \$335,721  
 Prin. Invest.: A T JESSUP  
 Tech. Officer: GSFC/EL LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7550 UNIVERSITY OF WASHINGTON 9260**  
 AIRBORNE MICROWAVE IMAGING OF RIVER VELOCITIES  
 06/30/1998 - 07/31/2000 FY00: \$0 Total: \$330,000  
 Prin. Invest.: W J PLANT  
 Tech. Officer: GSFC/ET ENGMAN  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 7604 UNIVERSITY OF WASHINGTON 9261**  
 CIS NET: IN SITU AND REMOTE MONITORING OF PRODUCTIVITY AND NUTRIENT CYCLES IN PUGET SOUND  
 07/21/1998 - 12/31/2000 FY00: \$8,977 Total: \$156,141  
 Prin. Invest.: B FROST  
 Tech. Officer: GSFC/J W MARRA  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7675 UNIVERSITY OF WASHINGTON 9262**  
 UTILIZATION OF THE UNIV OF WASHINGTON'S AIRBORNE MEASUREMENTS FOR STUDIES OF THE RADIATIVE EFFECTS OF  
 09/09/1998 - 08/31/2000 FY00: \$138,000 Total: \$258,000  
 Prin. Invest.: P V HOBBS  
 Tech. Officer: GSFC/M I MISHCHENKO  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7732 UNIVERSITY OF WASHINGTON 9263**  
 POLAR UVI MISSION DATA ANALYSIS EXTENDED MISSION  
 09/29/1998 - 09/30/2001 FY00: \$506,940 Total: \$1,141,740  
 Prin. Invest.: G K PARKS  
 Tech. Officer: GSFC/R HOFFMAN  
 CASE Category: 13 - PHYSICS

**NAG 5 7767 UNIVERSITY OF WASHINGTON 9264**  
 NGST AD HOC SCIENCE WORKING GROUP  
 01/11/1999 - 12/31/1999 FY00: \$0 Total: \$20,106  
 Prin. Invest.: D MARGON  
 Tech. Officer: GSFC/EL SMITH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7819 UNIVERSITY OF WASHINGTON 9265**  
 EOS OBSERVATION RESOURCE  
 12/14/1998 - 12/31/2000 FY00: \$200,000 Total: \$549,872  
 Prin. Invest.: P V HOBBS  
 Tech. Officer: GSFC/M D KING  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7847 UNIVERSITY OF WASHINGTON 9266**  
 VARIABILITY OF NET PRECIPITATION OVER ANTARCTIC SEA ICE AND ITS EFFECTS ON ICE-OCEAN INTERACTIONS  
 11/23/1998 - 12/31/2000 FY00: \$110,853 Total: \$217,996  
 Prin. Invest.: A SCHWEIGER  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 7886 UNIVERSITY OF WASHINGTON 9267**  
 VALIDATION OF ACOUSTICAL RAINFALL MEASUREMENTS  
 12/02/1998 - 11/30/2000 FY00: \$31,894 Total: \$169,611  
 Prin. Invest.: J A NYSTUEN  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 7932 UNIVERSITY OF WASHINGTON 9268**  
 THE COUNTERPARTS OF THE LUMINOUS, BURSTING X-RAY SOURCES IN GLOBULAR CLUSTERS - LTS A98  
 01/04/1999 - 01/14/2001 FY00: \$47,245 Total: \$92,475  
 Prin. Invest.: S F ANDERSON  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8089 UNIVERSITY OF WASHINGTON 9269**  
 SOLAR WIND/IONOSPHERIC COUPLING IN THE MASS LOADING OF THE MAGNETOSPHERE AND THE FORMATION OF THE GE  
 01/28/1999 - 02/28/2001 FY00: \$70,975 Total: \$143,093  
 Prin. Invest.: R M WIWNGLEE  
 Tech. Officer: GSFC/D EVANS  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8109 UNIVERSITY OF WASHINGTON 9270**  
 AIRBORNE IN SITU MEASUREMENTS FOR TRMM VALIDATION STUDIES AT KWAJALEIN  
 02/08/1999 - 02/14/2001 FY00: \$80,927 Total: \$609,771  
 Prin. Invest.: P V HOBBS  
 Tech. Officer: GSFC/O W THIELE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8164 UNIVERSITY OF WASHINGTON 9271**  
 TOOLS TO PROBE THE OUTER COMETARY SYSTEM AND TO SIMULATE THE FORMATION AND EVOLUTION OF THE SOLAR  
 02/08/1999 - 01/31/2001 FY00: \$156,900 Total: \$307,769  
 Prin. Invest.: G LAKE  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8296 UNIVERSITY OF WASHINGTON 9272**  
 DYNAMICS AND THERMODYNAMICS OF THE NORTH PACIFIC OCEAN  
 02/23/1999 - 02/28/2001 FY00: \$152,529 Total: \$301,926  
 Prin. Invest.: K KELLY  
 Tech. Officer: GSFC/EL LINDSTROM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8363 UNIVERSITY OF WASHINGTON 9273**  
 VALIDATION OF THE LIDAR RETRIEVAL OF AEROSOL EXTINCTION  
 03/15/1999 - 03/14/2001 FY00: \$79,596 Total: \$168,058  
*Prin. Invest.:* D S COVERT  
*Tech. Officer:* GSFC/M MISHCHENKO  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8374 UNIVERSITY OF WASHINGTON 9274**  
 ANALYSIS OF ASCA AND ROSAT OBSERVATIONS OF CATAclysmic VARIABLES (ADP98)  
 03/03/1999 - 03/14/2001 FY00: \$0 Total: \$20,000  
*Prin. Invest.:* P SZKODY  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8684 UNIVERSITY OF WASHINGTON 9275**  
 INVESTIGATION OF THE RELATIONSHIPS BETWEEN AEROSOL PHYSICAL AND CHEMICAL PROPERTIES  
 07/16/1999 - 07/14/2001 FY00: \$14,600 Total: \$29,241  
*Prin. Invest.:* D A HEGG  
*Tech. Officer:* GSFC/M I MISHCHENKO  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8784 UNIVERSITY OF WASHINGTON 9276**  
 MOTOR PROTEINS AS SHUTTLES FOR DIRECTED TRANSPORT IN SYNTHETIC MATRICES  
 09/27/1999 - 08/30/2000 FY00: \$208,000 Total: \$280,005  
*Prin. Invest.:* V VOGEL  
*Tech. Officer:* GSFC/R CROUCH  
*CASE Category:* 99 - MULTI INTERDISCIPLINARY, OTHER

**NAG 5 8801 UNIVERSITY OF WASHINGTON 9277**  
 "AIRCRAFT SUPPORT FOR SAFARI-2000"  
 12/13/1999 - 12/14/2000 FY00: \$582,932 Total: \$582,932  
*Prin. Invest.:* P V HOBBS  
*Tech. Officer:* GSFC/M D KING  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 8966 UNIVERSITY OF WASHINGTON 9278**  
 O VI EMISSION LINES IN HYADES F STARS - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$33,400 Total: \$33,400  
*Prin. Invest.:* E H BOHM-VITENSE  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8981 UNIVERSITY OF WASHINGTON 9279**  
 THE ORIGIN OF PECULIAR UV LINE RATIOS IN MAGNETIC CATAclysmic VARIABLES - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$14,900 Total: \$14,900  
*Prin. Invest.:* P SZKODY  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9022 UNIVERSITY OF WASHINGTON 9280**  
 "UNIVERSITY OF WASHINGTON PARTICIPATION IN SAFARI- 2000"  
 02/08/2000 - 02/14/2001 FY00: \$284,176 Total: \$284,176  
*Prin. Invest.:* P V HOBBS  
*Tech. Officer:* GSFC/M D KING  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9086 UNIVERSITY OF WASHINGTON 9281**  
 ENHANCING THE LASER-LUNAR RANGING TEST OF THE STRONG EQUIVALENCE PRINCIPLE  
 02/17/2000 - 01/31/2001 FY00: \$37,500 Total: \$37,500  
*Prin. Invest.:* J GUNDLACH  
*Tech. Officer:* GSFC/P CRANE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9250 UNIVERSITY OF WASHINGTON 9282**  
 ION-F: A SPACE-BASED TESTBED FOR DISTRIBUTED FORMATION CONTROL USING THE DAWGSTAR NANOSAT  
 03/17/2000 - 03/31/2001 FY00: \$47,000 Total: \$47,000  
*Prin. Invest.:* M CAMPBELL  
*Tech. Officer:* GSFC/K LUU  
*CASE Category:* 41 - AERONAUTICAL ENGINEERING

**NAG 5 9324 UNIVERSITY OF WASHINGTON 9283**  
 NEXT GENERATION SPACE TELESCOPE (NGST) AD HOC SCIENCE WORKING GROUP (ASWG) ACTIVITY  
 03/21/2000 - 03/14/2001 FY00: \$22,779 Total: \$22,779  
*Prin. Invest.:* B MARGON  
*Tech. Officer:* GSFC/E P SMITH  
*CASE Category:* 42 - ASTRONAUTICAL ENGINEERING

**NAG 5 9334 UNIVERSITY OF WASHINGTON 9284**  
 ROLE OF THE POLAR OCEANS IN GLOBAL CLIMATE  
 06/19/2000 - 08/31/2001 FY00: \$175,000 Total: \$175,000  
*Prin. Invest.:* D A ROTHROCK  
*Tech. Officer:* GSFC/K PATRINGTON  
*CASE Category:* 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 9416 UNIVERSITY OF WASHINGTON 9285**  
 UNDERSTANDING WATER, CLIMATE AND GLOBAL CHANGE: A GEWEX GLOBAL WATER AND ENERGY PATHFINDER DATA SET  
 04/25/2000 - 04/30/2001 FY00: \$43,700 Total: \$43,700  
*Prin. Invest.:* D LETTENMAIER  
*Tech. Officer:* GSFC/J DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 9454 UNIVERSITY OF WASHINGTON 9286**  
 TERRESTRIAL HYDROLOGY & CLIMATE STUDIES USING EOS- ERA DATA  
 05/17/2000 - 04/14/2001 FY00: \$62,812 Total: \$62,812  
*Prin. Invest.:* D LETTENMAIER  
*Tech. Officer:* GSFC/P HOUSER  
*CASE Category:* 39 - ENVIRONMENTAL SCIENCE, OTHER

**NAG 5 9657 UNIVERSITY OF WASHINGTON 9287**  
 RELATIONSHIP BETWEEN PRECIPITATING CONVECTION AND EASTERLY WAVE DYNAMICS IN THE WESTERN CENTRAL PACIFIC  
 08/22/2000 - 05/31/2001 FY00: \$58,000 Total: \$58,000  
*Prin. Invest.:* C BRETHERTON  
*Tech. Officer:* GSFC/R LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9668 UNIVERSITY OF WASHINGTON 9288**  
 COMBINED USE OF TRMM SATELLITE GROUND-VALIDATION DATA TO MAP CONVECTIVE & STRATIFORM PRECIPITATION  
 06/19/2000 - 11/30/2000 FY00: \$47,070 Total: \$47,070  
*Prin. Invest.:* R A HOUZE  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9720 UNIVERSITY OF WASHINGTON 9289**  
 JOINT-PROBABILITY ANALYSIS OF THE NATURAL VARIABILITY OF TROPICAL OCEANIC PRECIPITATION  
 06/21/2000 - 06/30/2001 FY00: \$67,083 Total: \$67,083  
 Prin. Invest.: S E YUTER  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9830 UNIVERSITY OF WASHINGTON 9290**  
 USE OF TRMM DATA TO EVALUATE BENEFITS OF POST-2002 GLOBAL PRECIPITATION MISSION FOR LAND SURFACE HYD  
 08/23/2000 - 08/31/2001 FY00: \$62,000 Total: \$62,000  
 Prin. Invest.: D LETTENMAIER  
 Tech. Officer: GSFC/R J LAWRENCE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 9835 UNIVERSITY OF WASHINGTON 9291**  
 MICROWAVE PASSIVE REMOTE SENSING OF SNOW: SCATTERING MODELS  
 07/26/2000 - 09/14/2001 FY00: \$44,104 Total: \$44,104  
 Prin. Invest.: L TSANG  
 Tech. Officer: GSFC/A T CHANG  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9854 UNIVERSITY OF WASHINGTON 9292**  
 SEA ICE KINEMATICS & THICKNESS FROM RGPS: OBSERVATIONS & THEORY  
 08/03/2000 - 09/30/2001 FY00: \$116,502 Total: \$116,502  
 Prin. Invest.: H STERN  
 Tech. Officer: GSFC/K PARTINGTON  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9906 UNIVERSITY OF WASHINGTON 9293**  
 ESTIMATION OF WEST ANTARCTIC MASS BALANCE USING ICESAT/GLAS  
 09/08/2000 - 09/14/2001 FY00: \$42,904 Total: \$42,904  
 Prin. Invest.: C F RAYMOND  
 Tech. Officer: GSFC/J ZWALLY  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 7 3 UNIVERSITY OF WASHINGTON 9294**  
 GRANT FOR P.I. OF THE STARDUST PROGRAM PHASE C/D  
 12/30/1996 - 03/31/1999 FY00: \$0 Total: \$200,800  
 Prin. Invest.: D E BROWNLEE  
 Tech. Officer: HQ/M DAHL  
 CASE Category: 11 - ASTRONOMY

**NAG 7 99001 UNIVERSITY OF WASHINGTON 9295**  
 GRANT FOR PI OF THE STARDUST PROGRAM (PHASE E)  
 05/21/1999 - 06/30/2004 FY00: \$183,221 Total: \$183,221  
 Prin. Invest.: D E BROWNLEE  
 Tech. Officer: HQ/M DAHL  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1149 UNIVERSITY OF WASHINGTON 9296**  
 PROTEIN CRYSTALLIZATION  
 09/01/1995 - 08/31/1999 FY00: \$0 Total: \$802,397  
 Prin. Invest.: V VOGEL, P STAYTOM  
 Tech. Officer: MSFC/M L PUSEY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1150 UNIVERSITY OF WASHINGTON 9297**  
 RESEARCH "ELECTRIFICATION IN TROPICAL SYSTEMS"  
 09/13/1995 - 09/12/1999 FY00: -\$40 Total: \$117,251  
 Prin. Invest.: M BAKER  
 Tech. Officer: MSFC/H J CHRISTIAN, MSFC/R J BLAKESLEE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1424 UNIVERSITY OF WASHINGTON 9298**  
 R/S IMPROVING OCEANIC STORM FORECASTING AND ANALYSIS THROUGH ASSIMILATION OF REMOTE SENSING  
 01/13/1998 - 12/31/2000 FY00: \$117,606 Total: \$340,896  
 Prin. Invest.: R A BROWN  
 Tech. Officer: MSFC/J M SIMONDS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1512 UNIVERSITY OF WASHINGTON 9299**  
 WATER TRANSPORT TO THE UPPER TROPOSPHERE BY CONVECTIVE SYSTEMS, AS INFERRED FROM GLOBAL  
 04/06/1998 - 04/05/2001 FY00: \$0 Total: \$126,560  
 Prin. Invest.: M BAKER  
 Tech. Officer: MSFC/J R BLOCKER  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1602 UNIVERSITY OF WASHINGTON 9300**  
 APPLICATIONS OF NANO/MICROTECHNOLOGY IN SPACE SYSTEMS  
 05/21/1999 - 09/30/2000 FY00: -\$20,490 Total: \$0  
 Prin. Invest.: M E CAMPBELL  
 Tech. Officer: MSFC/D O'NEIL  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 8 1647 UNIVERSITY OF WASHINGTON 9301**  
 POLLUTION AND LIGHTNING  
 10/15/1999 - 09/30/2000 FY00: \$95,177 Total: \$95,177  
 Prin. Invest.: M B BAKER  
 Tech. Officer: MSFC/D SAMUELSON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 9 958 UNIVERSITY OF WASHINGTON 9302**  
 PERCEIVED SELF MOTION ASSESSED BY COMPUTER MADE ANIMATIONS  
 11/18/1997 - 11/18/1999 FY00: -\$45 Total: \$14,513  
 Prin. Invest.: D E PARKER  
 Tech. Officer: JSC/D HARM  
 CASE Category: 56 - MEDICL

**NAG 9 1258 UNIVERSITY OF WASHINGTON 9303**  
 VISUAL ANATOMIC GUIDANCE TO FACILITATE ULTRASOUND IMAGE ACQUISITION  
 09/07/2000 - 08/31/2001 FY00: \$33,989 Total: \$33,989  
 Prin. Invest.: F H SHEEHAN  
 Tech. Officer: JSC/C W LLOYD  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 1 18940 UNIVERSITY OF WASHINGTON 9304**  
 SAGE III SCIENCE INVESTIGATION SUPPORT, P.I. PETER V. HOBBS  
 10/27/1989 - 01/31/2005 FY00: \$17,000 Total: \$401,880  
 Prin. Invest.: P V HOBBS  
 Tech. Officer: LARC/G MADDREA  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAS 1 99105 UNIVERSITY OF WASHINGTON 9305**  
 COUPLING PICASSO-CENA TO IN SITU MEASUREMENTS FOR ESTIMATION  
 OF DIRECT AEROSOL RADIATIVE FORCING  
 05/17/1999 - 05/16/2001 FY00: \$50,650 Total: \$58,650  
*Prin. Invest.:* R J CHARLSON  
*Tech. Officer:* LARC/G GIBSON  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAS 5 30613 UNIVERSITY OF WASHINGTON 9306**  
 INVESTIGATION DEFINITION PHASE FOR CLUSTER PLASMA SPEC-  
 TROMETRY  
 02/21/1989 - 09/11/2000 FY00: \$96,752 Total: \$5,175,498  
*Prin. Invest.:* G K PARKS  
*Tech. Officer:* GSFC/J L CHRISTENSEN  
*CASE Category:* 13 - PHYSICS

**NAS 5 31372 UNIVERSITY OF WASHINGTON 9307**  
 INTERMEDIATE THERMAL INFRARED RADIOMETER (EOS INVESTIGATION)  
 02/19/1992 - 12/14/2001 FY00: \$428,349 Total: \$3,066,349  
*Prin. Invest.:* A R GILLESPIE  
*Tech. Officer:* GSFC/H BLODGET  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 1 402 UNIVERSITY OF WASHINGTON 9308**  
 REMOTE & IN-SITU MEASUREMENT OF AEROSOL OPTICAL PROPERTIES IN  
 THE BOUNDARY LAYER  
 07/24/2000 - 09/14/2003 FY00: \$23,200 Total: \$23,200  
*Prin. Invest.:* T L COVERT, T L ANDERSON  
*Tech. Officer:* LARC/C A HOSTETLER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 982 UNIVERSITY OF WASHINGTON 9309**  
 MODELING & SAFETY ANALYSIS OF CRAS/FMS COORDINATOR  
 03/27/1997 - 02/28/1999 FY00: -\$45,369 Total: \$74,631  
*Prin. Invest.:* N G LEVESON  
*Tech. Officer:* ARC/E A PALMER  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 2 5243 UNIVERSITY OF WASHINGTON 9310**  
 EFFICIENT NONLINEAR CFD-BASED AEROELASTIC ANALYSIS FOR  
 MULTIPLE LOAD CASES PRELIMINARY DESIGN  
 11/05/1997 - 03/31/2000 FY00: -\$202 Total: \$187,751  
*Prin. Invest.:* E LIVNE  
*Tech. Officer:* ARC/G P GURUSWAMY  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 2 5322 UNIVERSITY OF WASHINGTON 9311**  
 A CLINICAL EVALUATION OF COOLING THERAPY FOR MULTI PLE SCLE-  
 ROSIS  
 05/03/1999 - 12/31/1999 FY00: \$0 Total: \$61,565  
*Prin. Invest.:* J BOWEN  
*Tech. Officer:* ARC/B LUNA, ARC/B W WEBBON  
*CASE Category:* 56 - MEDICL

**NCC 5 326 UNIVERSITY OF WASHINGTON 9312**  
 SUPPORT OF THE UNIVERSITY OF WASHINGTON'S RESEARCH AIRCRAFT  
 FOR NASASTUDIES (PROPOSAL #111017)  
 03/23/1996 - 02/28/2001 FY00: \$322,952 Total: \$934,204  
*Prin. Invest.:* P V HOBBS  
*Tech. Officer:* GSFC/M D KING  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 5 345 UNIVERSITY OF WASHINGTON 9313**  
 BIOGEOCHEMICAL DYNAMICS IN RIVER CORRIDORS OF THE AMAZON  
 BASIN AND THEIR RESPONSE TO ANTHROPOGENIC C  
 06/25/1998 - 12/31/2000 FY00: \$156,300 Total: \$343,800  
*Prin. Invest.:* J E RICHEY  
*Tech. Officer:* GSFC/D W DEERING  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 363 UNIVERSITY OF WASHINGTON 9314**  
 TWO-HANDED INTERFACE IMPROVEMENTS FOR THE STEREO SC OPIC  
 ANALYZER  
 09/22/1998 - 09/30/2000 FY00: \$0 Total: \$81,830  
*Prin. Invest.:* T FURNESS  
*Tech. Officer:* GSFC/A ROBERTS  
*CASE Category:* 22 - COMPUTER SCIENCE

**NCC 9 56 UNIVERSITY OF WASHINGTON 9315**  
 RESEARCH GRANT  
 02/22/2000 - 01/15/2001 FY00: \$10,437 Total: \$10,437  
*Prin. Invest.:* D E PARKER  
*Tech. Officer:* JSC/D HARM, JSC/J J BLOOMBERG  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 40011 UNIVERSITY OF WASHINGTON 9316**  
 NATIONAL SPACE GRANT COLLEGE & FELLOWSHIP PROGRAM  
 09/29/1989 - 02/28/2000 FY00: -\$43,516 Total: \$2,469,838  
*Prin. Invest.:* G K PARKS  
*Tech. Officer:* HQ/E T SCHWARTZ  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 2 52219 UNIVERSITY OF WASHINGTON 9317**  
 INFRARED STUDY OF HERBIG AE/BE SYSTEMS  
 08/19/1996 - 08/31/2000 FY00: \$0 Total: \$76,000  
*Prin. Invest.:* D BROWNLEE  
*Tech. Officer:* ARC/D H WOODEN, ARC/F C WITTEBORN  
*CASE Category:* 11 - ASTRONOMY

**NGT 5 66 UNIVERSITY OF WASHINGTON 9318**  
 COMPUTATIONAL OPTICS YEAR 1 OF 2 YEAR COMMITMENT P ERIOD OF  
 PERFORMANCE SEPT. 1, 1998 TO AUG. 31, 1  
 05/27/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
*Prin. Invest.:* J BURKE  
*Tech. Officer:* GSFC/G SOFFEN  
*CASE Category:* 21 - MATHEMATICS

**NGT 5 96 UNIVERSITY OF WASHINGTON 9319**  
 A NEW MECHANISM FOR DEGASSING AT HIGH-SULFUR VOLCA NOES  
 08/23/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* C NEWHALL  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30004 UNIVERSITY OF WASHINGTON 9320**  
 QUANTITATIVE MESOSCALE GEOMORPHOLOGY OF THE AMAZON  
 10/11/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
*Prin. Invest.:* T DUNNE  
*Tech. Officer:* GSFC/G ASRAR  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE



**NGT 5 30030 UNIVERSITY OF WASHINGTON 9321**  
 STRUCTURE, DYNAMICS, AND VARIABILITY OF THERMOCLIN WATER  
 FORMATION IN THE EASTERN SUBTROPICAL NORTH  
 10/17/1996 - 08/31/1999 FY00: \$0 Total: \$66,000  
 Prin. Invest.: L THOMPSON  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 33 - OCEANOGRAPHY

**NGT 5 30120 UNIVERSITY OF WASHINGTON 9322**  
 PREDICTING LAND SURFACE FLUXES OF FRESH WATER TO THE ARCTIC  
 OCEAN ESSF RECIPIENT: SANTIAGO GASSO  
 10/01/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D LETTENMAIER  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30121 UNIVERSITY OF WASHINGTON 9323**  
 ASSESSING THE GLOBAL CHARACTERISTICS OF AEROSOLS: WHAT IS THE  
 INFLUENCE OF HUMIDITY IN COLUMNAR AERO  
 10/01/1997 - 03/31/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: D HEGG  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30149 UNIVERSITY OF WASHINGTON 9324**  
 COMBINED USE OF REMOTE SENSING AND BIOGEOCHEMICAL MODELING  
 TO ESTIMATE PRIMARY PRODUCTION AND CARBO  
 08/28/1998 - 08/31/2001 FY00: \$22,000 Total: \$55,000  
 Prin. Invest.: J E RICHEY, WILHELM  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30157 UNIVERSITY OF WASHINGTON 9325**  
 MODELING THE FLAMMABILITY OF BRAZILIAN AMAZON FORESTS AT THE  
 FOREST-SAVANNA ECOTONE  
 08/28/1998 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: T M HINCKLEY  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30161 UNIVERSITY OF WASHINGTON 9326**  
 COUPLING LAND-SURFACE AND RIVERINE WATER AND CARBON CYCLES  
 IN THE AMAZONBASIN: DEVELOPMENT OF A MODEL  
 08/31/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: J E RICHEY, MAYORGA  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30195 UNIVERSITY OF WASHINGTON 9327**  
 THE ARCTIC OSCILLATION SIGNATURE IN NORTHERN HEMISPHERE  
 CLIMATE  
 08/18/1999 - 12/31/2000 FY00: \$1,727 Total: \$23,727  
 Prin. Invest.: J M WALLACE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30213 UNIVERSITY OF WASHINGTON 9328**  
 IMPROVING MODEL PARAMETERIZATIONS OF GAS EXCHANGE: QUANTIFI-  
 CATION OF BUBBLE DYNAMICS BY MEASUREMENT  
 08/20/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: S R EMERSON  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30220 UNIVERSITY OF WASHINGTON 9329**  
 OPPORTUNITIES FOR IMPROVING WESTERN WATER MANAGEMENT  
 THROUGH REMOTE SENSING & HYDROLOGIC MODEL  
 08/24/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: D P LETTENMAIER Prin. Invest.: NONE  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30343 UNIVERSITY OF WASHINGTON 9330**  
 TROPICAL FOREST PHENOLOGY ACROSS ENVIRONMENTAL GRADIENTS  
 IN PANAMA: A MULTISCALE STUDY USING REMOTE SENSING  
 08/21/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: T HINCKLEY  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40017 UNIVERSITY OF WASHINGTON 9331**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATIONAL COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 12/19/1996 - 01/31/2001 FY00: \$442,050 Total: \$1,664,616  
 Prin. Invest.: G K PARKS  
 Tech. Officer: GSFC/L KEFFER  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50078 UNIVERSITY OF WASHINGTON 9332**  
 NUMERICAL SIMULATION OF DAMPED LYMAN-ALPHA SYSTEMS  
 08/26/1997 - 12/30/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: G LAKE  
 Tech. Officer: GSFC/A NURRIDIN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50285 UNIVERSITY OF WASHINGTON 9333**  
 THREE DIMENSIONAL SIMULATIONS OF THE SOLAR WIND INTERACTION  
 WITH MAGNETIC ANOMALIES ON THE SURFACE  
 06/23/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: R WINGLEE  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50298 UNIVERSITY OF WASHINGTON 9334**  
 CALCULATION OF THE MERGER PHASE OF BINARY BLACK HOLES USING  
 NUMERICAL RELATIVITY/STUDENT LUISA BU  
 06/28/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J BARDEEN  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50299 UNIVERSITY OF WASHINGTON 9335**  
 AN EMPIRICAL MEASURE OF GALAXY EVOLUTION IN CLUSTERS  
 06/28/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J DALCANTON  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50334 UNIVERSITY OF WASHINGTON 9336**  
 DETERMINING THE EFFECTS OF CLOUDS & SEA ICE ON THE EARTH RADIATION BUDGET IN THE SOUTHERNOCEAN  
 08/17/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
*Prin. Invest.:* S WARREN  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 8 52862 UNIVERSITY OF WASHINGTON 9337**  
 MODELING OF ELECTRICAL EFFECTS ON THE DYNAMICS OF SOLIDIFICATION  
 07/27/1998 - 08/13/2000 FY00: \$0 Total: \$22,000  
*Prin. Invest.:* L N BRUSH  
*Tech. Officer:* MSFC/J F DOWDY  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 2 1198 WASHINGTON STATE UNIVERSITY 9338**  
 LIGNIFICATION: A NEW PARADIGM  
 04/02/1998 - 05/31/2001 FY00: \$208,333 Total: \$375,000  
*Prin. Invest.:* N G LEWIS  
*Tech. Officer:* ARC/M M AVERNER, ARC/R D MACELROY  
*CASE Category:* 54 - ENVIRONMENTAL BIOLOGY

**NAG 3 1918 WASHINGTON STATE UNIVERSITY 9339**  
 PASSIVE OR ACTIVE RADIATION STRESS STABILIZATION OF (AND COUPLING TO) LIQUID BRIDGES & BRIDGE NETWORK  
 07/12/1996 - 07/11/2000 FY00: \$50,000 Total: \$400,000  
*Prin. Invest.:* P L MARSTON  
*Tech. Officer:* GRC/R SKARDA  
*CASE Category:* 13 - PHYSICS

**NAG 3 2114 WASHINGTON STATE UNIVERSITY 9340**  
 SINGLE BUBBLE SONOLUMINESCENCE IN LOW GRAVITY AND OPTICAL RADIATION PRESSURE POSITIONING OF THE BUBBLE  
 02/24/1998 - 09/30/2000 FY00: \$0 Total: \$130,000  
*Prin. Invest.:* P L MARSTON, W E TORRUELLAS  
*Tech. Officer:* GRC/N R HALL  
*CASE Category:* 13 - PHYSICS

**NAG 3 2378 WASHINGTON STATE UNIVERSITY 9341**  
 PASSIVE AND ACTIVE STABILIZATION OF LIQUID BRIDGES IN LOW GRAVITY  
 04/04/2000 - 03/09/2004 FY00: \$100,000 Total: \$100,000  
*Prin. Invest.:* D MARSTON  
*Tech. Officer:* GRC/C NIEDERHAUS  
*CASE Category:* 49 - ENGINEERING, OTHER

**NAG 5 4035 WASHINGTON STATE UNIVERSITY 9342**  
 RECONSTRUCTION OF THREE-DIMENSIONAL SHAPE AND SPIN FROM RADAR DATA  
 02/27/1997 - 03/31/2001 FY00: \$42,750 Total: \$173,975  
*Prin. Invest.:* D HUDSON  
*Tech. Officer:* GSFC/J G GRANT  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 4841 WASHINGTON STATE UNIVERSITY 9343**  
 CALCIUM/CALMODULIN-MEDIATED GRAVITROPIC RESPONSE I  
 06/19/1997 - 05/31/2001 FY00: \$209,500 Total: \$497,400  
*Prin. Invest.:* B POOVAIAH  
*Tech. Officer:* GSFC/M AVERNER  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 9345 WASHINGTON STATE UNIVERSITY 9344**  
 ACCRETION OF INTERPLANETARY DUST: A NEW RECORD FROM 3-HE IN POLAR ICE CORES  
 03/30/2000 - 03/31/2001 FY00: \$30,000 Total: \$30,000  
*Prin. Invest.:* E BROOK  
*Tech. Officer:* GSFC/J BOYCE  
*CASE Category:* 11 - ASTRONOMY

**NAG 8 1477 WASHINGTON STATE UNIVERSITY 9345**  
 R/S A COMPARATIVE MODELING STUDY OF MAGNETIC AND ELECTROSTATIC LEVITATION IN MICROGRAVITY  
 03/26/1998 - 01/31/2002 FY00: \$95,000 Total: \$254,167  
*Prin. Invest.:* B Q LI  
*Tech. Officer:* MSFC/C TALLEY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1693 WASHINGTON STATE UNIVERSITY 9346**  
 R/S "STUDY OF MAGNETIC FIELD EFFECTS ON CONVECTION AND SOLIDIFICATION IN NORMAL AND MICROGRAVITY"  
 06/02/2000 - 11/30/2003 FY00: \$45,000 Total: \$45,000  
*Prin. Invest.:* B Q LI  
*Tech. Officer:* MSFC/P M DOTY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 00177 WASHINGTON STATE UNIVERSITY 9347**  
 PARTICIPATION IN THE OZONE MONITORING INSTRUMENT SCIENCE TEAM  
 06/09/2000 - 10/31/2000 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* G MOUNT  
*Tech. Officer:* GSFC/J LOIACANO  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 5346 WASHINGTON STATE UNIVERSITY 9348**  
 LOW-POWER FAST SOI ELECTRONICS FOR SPACE APPLICATIONS  
 08/22/1999 - 07/31/2001 FY00: \$23,100 Total: \$49,100  
*Prin. Invest.:* M A OSMAN  
*Tech. Officer:* ARC/B A BIEGEL, ARC/T R GOVINDAN  
*CASE Category:* 29 - MATH/COMPUTER SCI, OTHER

**NCC 8 82 WASHINGTON STATE UNIVERSITY 9349**  
 "STUDY OF MAGNETIC DUMPING EFFECT ON CONVECTION & SOLIDIFICATION UNDER G-JITTER CONDITIONS"  
 04/19/1996 - 04/21/2001 FY00: \$90,000 Total: \$360,000  
*Prin. Invest.:* B Q LI  
*Tech. Officer:* MSFC/C R TALLEY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NGT 3 52330 WASHINGTON STATE UNIVERSITY 9350**  
 GRADUATE STUDENT RESEARCHERS PROGRAM  
 06/10/1997 - 08/15/2000 FY00: \$0 Total: \$86,000  
*Prin. Invest.:* P MARSTON  
*Tech. Officer:* GRC/F J MONTEGANI  
*CASE Category:* 13 - PHYSICS

**NAG 5 8248 WHITMAN COLLEGE 9351**  
 ORFEUS IMAPS MISSION SUPPORT  
 03/09/1999 - 09/30/2000 FY00: \$0 Total: \$31,299  
*Prin. Invest.:* U J SOFIA  
*Tech. Officer:* GSFC/R POLIDAN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 8249 WHITMAN COLLEGE 9352**  
 THE PROPERTIES OF INTERSTELLAR DUST & APPLICATIONS TO  
 ASTROPHYSICAL PROBLEMS  
 03/09/1999 - 09/30/2000 FY00: \$0 Total: \$25,500  
 Prin. Invest.: U SOFIA  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9249 WHITMAN COLLEGE 9353**  
 FUV EXTINCTION: UNIQUE INSIGHTS INTO THE NATURE & ROLE OF SMALL  
 DUST GRAINS - FUSE  
 03/16/2000 - 03/14/2001 FY00: \$21,954 Total: \$21,954  
 Prin. Invest.: U SOFIA  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

## WEST VIRGINIA

**NAG 2 1194 MARSHALL UNIVERSITY 9354**  
 CALBINDINS & APOPTOSIS AFTERSHORT TERM SPACE FLIGHT  
 03/25/1998 - 05/31/2001 FY00: \$0 Total: \$103,026  
 Prin. Invest.: W B RHOTEN, I N SERGEEV  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 9 24 UNIVERSITY OF CHARLESTON - WEST VIRGINIA 9355**  
 GRADUATE STUDENT RESEARCH PROGRAM  
 06/02/1997 - 06/30/2000 FY00: \$0 Total: \$44,000  
 Prin. Invest.: C COOMBS, J NETTLES  
 Tech. Officer: JSC/D A MORRISON  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 1 1892 WEST VIRGINIA UNIVERSITY 9356**  
 INVESTIGATION OF POINT DOPPLER VELOCIMETRY (PDV) FOR TRAN-  
 SITION DETECTION IN BOUNDARY LAYERS  
 01/13/1997 - 01/12/1999 FY00: -\$769 Total: \$89,229  
 Prin. Invest.: J M KUHLMAN  
 Tech. Officer: LARC/J F MEYERS  
 CASE Category: 49 - ENGINEERING, OTHER

**NAG 1 2096 WEST VIRGINIA UNIVERSITY 9357**  
 ROLE OF TURBULENCE IN CHEMICAL AND DYNAMICAL PROCESSES IN THE  
 NEAR-FIELD WAKE OF SUBSONIC AIRCRAFT  
 09/14/1998 - 09/13/2001 FY00: \$71,777 Total: \$196,620  
 Prin. Invest.: R F TURCO, W S LEWELLEN  
 Tech. Officer: LARC/W L GROSE, LARC/B E ANDERSON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2132 WEST VIRGINIA UNIVERSITY 9358**  
 INVESTIGATION OF POINT DOPPLER VELOCIMETRY (PDV) FOR TRAN-  
 SITION DETECTION IN BOUNDARY LAYERS  
 01/15/1999 - 01/12/2000 FY00: \$0 Total: \$47,647  
 Prin. Invest.: J M KUHLMAN  
 Tech. Officer: LARC/J F MEYERS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 2 1134 WEST VIRGINIA UNIVERSITY 9359**  
 VITAL: V & V THROUGH INCONSISTENCE TRACKING & ANALYSIS  
 06/25/1997 - 11/30/1998 FY00: -\$11,739 Total: \$88,186  
 Prin. Invest.: J R CALLAHAN, S M ESTERBROOK  
 Tech. Officer: ARC/M R LOWRY  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 2 1158 WEST VIRGINIA UNIVERSITY 9360**  
 AIRNET REMOTELY CONTROLLED B747 & B777 SCALE MODEL S W/O N-  
 BOARD MICROPROCESSORS-BASED NEURAL NETWORKS  
 08/25/1997 - 12/31/1999 FY00: \$0 Total: \$150,000  
 Prin. Invest.: M R NAPOLITANO  
 Tech. Officer: ARC/W F BROOKS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 6468 WEST VIRGINIA UNIVERSITY 9361**  
 INVESTIGATION OF THE ENERGY BALANCE OF SOLAR WIND ELECTRONS:  
 ULYSSES OBSERVATIONS  
 11/13/1997 - 01/31/2001 FY00: \$40,067 Total: \$113,529  
 Prin. Invest.: E SCIME  
 Tech. Officer: GSFC/J LING  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1494 WEST VIRGINIA UNIVERSITY 9362**  
 MARS ENVIRONMENTAL COMPATIBILITY ASSESSMENT  
 06/11/1998 - 05/31/2000 FY00: \$54,368 Total: \$193,541  
 Prin. Invest.: T MELOY  
 Tech. Officer: MSFC/J POE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1496 WEST VIRGINIA UNIVERSITY 9363**  
 TECHNOLOGY EDUCATION BIOTECHNOLOGY CURRICULUM (TBEC)  
 09/23/1998 - 08/31/2000 FY00: \$0 Total: \$94,680  
 Prin. Invest.: J G WELLS  
 Tech. Officer: MSFC/D LONGEDDY  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 2 759 WEST VIRGINIA UNIVERSITY 9364**  
 DETERMINATION OF STABILITY & CONTROL DERIVATIVES OF THE F/A-18  
 HARV FROM FLIGHT DATA USING THE ...  
 05/20/1992 - 10/31/1999 FY00: -\$2,296 Total: \$289,161  
 Prin. Invest.: M R NAPOLITANO, J M SPAGNUOLO  
 Tech. Officer: ARC/A H BOWERS  
 CASE Category: 41 - AERONAUTICAL ENGR

**NCC 2 979 WEST VIRGINIA UNIVERSITY 9365**  
 APPLIED RESEARCH IN SOFTWARE VERIFICATION & VALIDATION  
 02/27/1997 - 02/28/2001 FY00: \$2,891,714 Total: \$9,933,710  
 Prin. Invest.: A C COGLEY, J SHAUB, S M EASTERBROOK  
 Tech. Officer: ARC/D S OSBURN  
 CASE Category: 29 - MATH/COMPUTER SCI, OTHER

**NCC 2 6043 WEST VIRGINIA UNIVERSITY 9366**  
 NASA AMES FACILITY EDUCATION OUTREACH PROGRAM  
 05/10/2000 - 10/31/2000 FY00: \$79,362 Total: \$79,362  
 Prin. Invest.: K DAVIS, E PULE  
 Tech. Officer: ARC/D OZBURN, ARC/S YASSINI  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

<b>NCC 5 406 WEST VIRGINIA UNIVERSITY 9367</b> NASA EPSCOR: PREPARATORY GRANT PROPOSAL 05/17/1999 - 06/30/2001 FY00: \$225,000 Total: \$450,000 Prin. Invest.: M JARAIEDI Tech. Officer: GSFC/D DETROYE CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 5 203 WHEELING JESUIT UNIVERSITY 9375</b> CLASSROOM OF THE FUTURE 06/09/1997 - 04/30/2000 FY00: \$0 Total: \$6,582,105 Prin. Invest.: D MILLER Tech. Officer: GSFC/M PHELPS CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 40055 WEST VIRGINIA UNIVERSITY 9368</b> TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM. 02/12/1997 - 02/28/2001 FY00: \$256,250 Total: \$973,750 Prin. Invest.: M JARAIEDI Tech. Officer: GSFC/L KEFFER CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCC 5 440 WHEELING JESUIT UNIVERSITY 9376</b> NATIONAL TECHNOLOGY TRANSFER CENTER: NASA TECHN. TRANSFER & COMMERCIALIZATION PROGRAM 11/09/1999 - 10/31/2000 FY00: \$7,173,000 Total: \$7,173,000 Prin. Invest.: J P ALLEN Tech. Officer: GSFC/N CHEEKS CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 50009 WEST VIRGINIA UNIVERSITY 9369</b> ASSESSING THE CONSEQUENCES OF OZONE DEPLETION ON EFFECTS OF ULTRAVIOLET-B RADIATION ON PLANT LITER Q 02/10/1997 - 08/31/2000 FY00: \$0 Total: \$66,000 Prin. Invest.: W T PETERJOHN Tech. Officer: GSFC/A NURRIDIN CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)	<b>NCC 5 451 WHEELING JESUIT UNIVERSITY 9377</b> CLASSROOM OF THE FUTURE PROGRAM 01/28/2000 - 12/31/2000 FY00: \$1,940,000 Total: \$1,940,000 Prin. Invest.: N NAIK Tech. Officer: GSFC/S CANRIGHT CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 50103 WEST VIRGINIA UNIVERSITY 9370</b> DEBRIS SLIDE HAZARDS IN THE CENTRAL APPALACHIANS: CONTROLLING FACTORS VIA LARGE SCALE SURFICIAL MAPP 09/06/1997 - 08/31/2000 FY00: \$0 Total: \$44,000 Prin. Invest.: S KITE Tech. Officer: GSFC/G ASRAR CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NCCW 65 WHEELING JESUIT UNIVERSITY 9378</b> NATIONAL TECHNOLOGY TRANSFER CENTER 11/01/1994 - 10/31/1999 FY00: -\$2,738 Total: \$53,626,381 Prin. Invest.: L W RIVER Tech. Officer: HQ/J ROOT CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NGT 5 52808 WEST VIRGINIA UNIVERSITY 9371</b> GRADUATE STUDENT RESEARCHERS PROGRAM 08/23/1995 - 08/31/1999 FY00: -\$268 Total: \$65,732 Prin. Invest.: L E BANTA Tech. Officer: MSFC/F SIX, MSFC/S COTHREN CASE Category: 46 - MECHANICAL ENGR	<b>NAG 3 2283 LAC COURTE OREILLES OJIBWA COMM COLL 9379</b> RENEWABLE ENERGY AND SUSTAINABLE DEVELOPMENT INSTITUTE PROJECT 09/24/1999 - 08/30/2001 FY00: \$0 Total: \$100,000 Prin. Invest.: D H ANDERSON Tech. Officer: GRC/A F HEPP CASE Category: 39 - ENVIRONMENTAL SCI, OTHER
<b>NAG 5 6961 WHEELING JESUIT UNIVERSITY 9372</b> CLASSROOM OF THE FUTURE 02/06/1998 - 06/30/2000 FY00: \$0 Total: \$299,943 Prin. Invest.: R MYERS Tech. Officer: GSFC/N KHAZENIE CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 2 1267 MARQUETTE UNIVERSITY 9380</b> EFFECT OF 2-G ON SINGLE MUSCLE FIBER FUNCTION IN RHESUS MONKEYS 09/15/1998 - 06/30/2000 FY00: \$0 Total: \$130,000 Prin. Invest.: R H FITTS Tech. Officer: ARC/R E GRINDELAND, ARC/K L SOUZA CASE Category: 59 - LIFE SCIENCE, OTHER
<b>NAG 5 8628 WHEELING JESUIT UNIVERSITY 9373</b> EARTH SYSTEM SCIENCE EDUCATION ALLIANCE 06/24/1999 - 06/30/2001 FY00: \$197,642 Total: \$387,683 Prin. Invest.: R J MEYERS Tech. Officer: GSFC/M Y WEI CASE Category: 39 - ENVIRONMENTAL SCI, OTHER	<b>NAG 9 1156 MARQUETTE UNIVERSITY 9381</b> LIMB MUSCLE FUNCTION WITH UNLOADING AND COUNTERMEASURES 09/15/1999 - 09/30/2002 FY00: \$218,461 Total: \$218,461 Prin. Invest.: R H FITTS Tech. Officer: JSC/C W LLOYD CASE Category: 99 - MULTI INTERDISCIPL, OTHER
<b>NAGW 2486 WHEELING JESUIT UNIVERSITY 9374</b> DESIGN AND CONSTRUCTION MANAGEMENT SERVICES FOR THE CLASSROOM OF THE FUTURE PROJECT 04/25/1991 - 08/31/1999 FY00: -\$551 Total: \$10,999,449 Prin. Invest.: T ACKER Tech. Officer: HQ/F DURSO CASE Category: 99 - MULTI INTERDISCIPL, OTHER	<b>NAS 9 18768 MARQUETTE UNIVERSITY 9382</b> EFFECTS OF WEIGHTLESSNESS ON HUMAN SINGLE MUSCLE FIBER FUNCTION FOR SLS-3 08/31/1992 - 12/31/1999 FY00: -\$4,380 Total: \$970,162 Prin. Invest.: R H FITTS Tech. Officer: JSC/N ELLERBEE CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 2 956 MEDICAL COLLEGE OF WISCONSIN 9383**  
 THE EFFECTS OF MICROGRAVITY ON NEUROMUSCULAR DEVELOPMENT  
 01/20/1995 - 10/31/1999 FY00: \$0 Total: \$871,961  
 Prin. Invest.: D A RILEY  
 Tech. Officer: ARC/W E HINDS, ARC/D M WINGET  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1422 MEDICAL COLLEGE OF WISCONSIN 9384**  
 EVALUATION OF THE QUALITY OF PRESERVATION OF ARCHIVED FIXED  
 TISSUE SAMPLES FOR ULTRASTRUCTURAL STUDY  
 07/18/2000 - 07/31/2001 FY00: \$42,000 Total: \$42,000  
 Prin. Invest.: D A RILEY  
 Tech. Officer: ARC/R D MACELROY, ARC/M M AVERNER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 8 1318 ST. NORBERT COLLEGE 9385**  
 JOVE RESEARCH  
 01/21/1997 - 08/31/1999 FY00: -\$1,172 Total: \$43,296  
 Prin. Invest.: D POISTER  
 Tech. Officer: MSFC/J F DOWDY, MSFC/J R PRUITT  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 3 2242 UNIV WISCONSIN-PLATTEVILLE 9386**  
 SLOW CRACK GROWTH AND FATIGUE LIFE PREDICTION OF CERAMIC  
 COMPONENTS SUBJECTED TO VARIABLE LOAD HISTORY  
 03/10/1999 - 11/01/2000 FY00: \$30,000 Total: \$42,000  
 Prin. Invest.: O JADAAN  
 Tech. Officer: GRC/N N NEMETH  
 CASE Category: 46 - MECHANICAL ENGR

**NCC 2 1163 UNIVERSITY OF WISCONSIN - LA CROSSE 9387**  
 A WORKBENCH FOR VOLUMETRIC DATA FILTERING AND SEGMENTATION  
 ALGORITHMS  
 03/16/2000 - 02/18/2001 FY00: \$31,901 Total: \$31,901  
 Prin. Invest.: S O SENER  
 Tech. Officer: ARC/M M AVERNER/B P DALTON  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 1 1830 UNIVERSITY OF WISCONSIN - MADISON 9388**  
 CLOUD STATISTICS FOR NASA CLIMATE CHANGE MY 1/3  
 04/18/1996 - 04/17/1999 FY00: -\$1 Total: \$154,621  
 Prin. Invest.: D WYLIE  
 Tech. Officer: LARC/D S MCDUGAL, LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2073 UNIVERSITY OF WISCONSIN - MADISON 9389**  
 THE COLLECTION AND ANALYSIS OF HIGH SPECTRAL-RESOLUTION  
 INFRARED RADIANCES AS PART OF FIRE  
 05/26/1998 - 05/31/2001 FY00: \$106,000 Total: \$354,000  
 Prin. Invest.: S A ACKERMAN, H RECERCOMB  
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2162 UNIVERSITY OF WISCONSIN - MADISON 9390**  
 MODELING AND ANALYSIS OF SAGE CONSTITUENT MIXING IN THE LOWER  
 STRATOSPHERE AND UPPER TROPOSPHERE  
 03/16/1999 - 12/31/2001 FY00: \$170,000 Total: \$220,000  
 Prin. Invest.: M H HITCHMAN  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2196 UNIVERSITY OF WISCONSIN - MADISON 9391**  
 THE CONTINUATION OF CLOUD STATISTICS FOR NASA CLIMATE CHANGE  
 STUDIES (NAG-1-1830 FOLLOW-ON/NRA)  
 05/21/1999 - 04/17/2001 FY00: \$52,000 Total: \$80,000  
 Prin. Invest.: D P WYLIE  
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2209 UNIVERSITY OF WISCONSIN - MADISON 9392**  
 SUOMI SESSIONS, 10TH CONFERENCE ON ATMOSPHERIC RADIATION  
 06/24/1999 - 09/30/1999 FY00: \$0 Total: \$13,400  
 Prin. Invest.: S A ACKERMAN, F J FOX, W P MENZEL  
 Tech. Officer: LARC/V E DELNORE, LARC/J L RAPER  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 1 2322 UNIVERSITY OF WISCONSIN - MADISON 9393**  
 OVERLAPPING CLOUD INVESTIGATIONS USING MODIS, CERES AND ARM  
 CART SITE DATA  
 08/18/2000 - 06/30/2001 FY00: \$75,000 Total: \$75,000  
 Prin. Invest.: S A ACKERMAN  
 Tech. Officer: LARC/J A GREEN  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 2 1009 UNIVERSITY OF WISCONSIN - MADISON 9394**  
 FECUNDITY OF QUAIL IN SPACELAB MICROGRAVITY  
 09/14/1995 - 06/30/1999 FY00: \$0 Total: \$118,654  
 Prin. Invest.: B C WENTWORTH  
 Tech. Officer: ARC/C M WINGET, ARC/G C JAHNS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1189 UNIVERSITY OF WISCONSIN - MADISON 9395**  
 MOLECULAR GENETICS OF ROOT THIGMOTROPISM IN ARABIDOPSIS  
 THALIANA  
 03/19/1998 - 04/30/2001 FY00: \$231,839 Total: \$451,867  
 Prin. Invest.: P H MASSON  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1220 UNIVERSITY OF WISCONSIN - MADISON 9396**  
 SKELETAL MUSCLE GROWTH OF REPAIR DURING MICROGRAVITY  
 05/20/1998 - 06/30/2001 FY00: \$191,874 Total: \$347,962  
 Prin. Invest.: E SCHULTZ  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1336 UNIVERSITY OF WISCONSIN - MADISON 9397**  
 MOLECULAR CLONING & CHARACTERIZATION OF THE AGR1 GENE OF  
 ARABIDOPSIS THALIANA  
 07/15/1999 - 12/31/2000 FY00: \$158,443 Total: \$236,111  
 Prin. Invest.: P MASSON  
 Tech. Officer: ARC/M M AVERNER, ARC/R D MACELROY  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 2 1380 UNIVERSITY OF WISCONSIN - MADISON 9398**  
 EFFECT OF SPACE FLIGHT ON ADRENAL MEDULLARY FUNCTION  
 09/01/1999 - 02/28/2001 FY00: \$0 Total: \$90,070  
 Prin. Invest.: P I LELKES  
 Tech. Officer: ARC/R D MACELROY, ARC/M M AVERNER  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 3 1909 UNIVERSITY OF WISCONSIN - MADISON 9399**  
 THERMOCAPILLARY CONVECTION IN LOW PR MATERIAL UNDER  
 SIMULATED REDUCED-GRAVITY CONDITIONS  
 07/08/1996 - 06/20/2000 FY00: \$30,000 Total: \$400,000  
*Prin. Invest.:* S KOU  
*Tech. Officer:* GRC/B S SINGH  
*CASE Category:* 47 - METAL & MATERIALS ENGR

**NAG 5 647 UNIVERSITY OF WISCONSIN - MADISON 9400**  
 DEVELOPMENT & FLIGHT OF WIDE FIELD IMAGING SURVEY POLARIMETER  
 03/01/1988 - 12/31/2000 FY00: \$0 Total: \$3,639,890  
*Prin. Invest.:* K H NORDSIECK  
*Tech. Officer:* GSFC/L J EARLY, GSFC/R H PLESS  
*CASE Category:* 13 - PHYSICS

**NAG 5 674 UNIVERSITY OF WISCONSIN - MADISON 9401**  
 SPARTIAL HETERODYNE SPECTROMETER FOR INVESTIGATION OF  
 INTERSTELLAR FAR ULTRAVIOLET EMISSION LINES  
 11/30/1990 - 01/31/2002 FY00: \$0 Total: \$2,125,999  
*Prin. Invest.:* R J REYNOLDS  
*Tech. Officer:* GSFC/L J EARLY, GSFC/R H PLESS  
*CASE Category:* 13 - PHYSICS

**NAG 5 679 UNIVERSITY OF WISCONSIN - MADISON 9402**  
 COSMIC X-RAY PHYSICS  
 03/25/1991 - 04/30/2001 FY00: \$0 Total: \$3,194,189  
*Prin. Invest.:* D MCCAMMON  
*Tech. Officer:* GSFC/L J EARLY, GSFC/R H PLESS  
*CASE Category:* 13 - PHYSICS

**NAG 5 2694 UNIVERSITY OF WISCONSIN - MADISON 9403**  
 COMPRESSION AND PROGRESSIVE TRANSMISSION OF DIGITAL IMAGES  
 08/24/1994 - 09/30/1999 FY00: \$0 Total: \$578,837  
*Prin. Invest.:* J W PERCIVAL  
*Tech. Officer:* GSFC/N LAL  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 2705 UNIVERSITY OF WISCONSIN - MADISON 9404**  
 ANOMALOUS X-RAY EMISSION FROM TAU SCO TYPE B STARS  
 08/24/1994 - 02/28/1999 FY00: \$0 Total: \$28,472  
*Prin. Invest.:* J CASSINELLI  
*Tech. Officer:* GSFC/N WHITE  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 2720 UNIVERSITY OF WISCONSIN - MADISON 9405**  
 CONTINUING INVESTIGATION OF SINGLE-PHOTON CALORIMETERS FOR  
 X-RAY SPECTROSCOPY  
 09/08/1994 - 07/31/2000 FY00: \$189,863 Total: \$454,788  
*Prin. Invest.:* D MCCAMMON  
*Tech. Officer:* GSFC/R L KELLEY  
*CASE Category:* 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 2854 UNIVERSITY OF WISCONSIN - MADISON 9406**  
 MULTI-WAVELENGTH DIAGNOSTICS OF ROTATION AND NON-SPHERICAL  
 WINDS IN THE WOLF-RAYET STAR  
 12/22/1994 - 09/30/1999 FY00: \$0 Total: \$227,999  
*Prin. Invest.:* J P CASSINELLI  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3155 UNIVERSITY OF WISCONSIN - MADISON 9407**  
 HOT GAS, EXPLOSIVE EVENTS, AND STRUCTURE IN THE INTERSTELLAR  
 MEDIUM  
 01/17/1996 - 09/30/1999 FY00: \$0 Total: \$200,470  
*Prin. Invest.:* D P COX, NONE  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3315 UNIVERSITY OF WISCONSIN - MADISON 9408**  
 THE VELOCITY OF WOLF-RAYET WINDS FROM IR LINE AND CONTINUUM  
 OBSERVATIONS.  
 07/31/1996 - 08/14/1999 FY00: \$0 Total: \$235,299  
*Prin. Invest.:* J P CASSINELLI  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3377 UNIVERSITY OF WISCONSIN - MADISON 9409**  
 ULTRAVIOLET INTERSTELLAR POLARIZATION AND NEW INSIGHTS INTO  
 INTERSTELLAR DUST GRAINS  
 09/06/1996 - 09/14/1999 FY00: \$0 Total: \$30,169  
*Prin. Invest.:* K H NORDSIECK  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3493 UNIVERSITY OF WISCONSIN - MADISON 9410**  
 "EVAPOTRANSPIRATION AND SENSIBLE HEATING EVALUATED IN-SITU  
 USING AN OPTIMAL ESTIMATION APPROACH  
 12/30/1996 - 09/30/1999 FY00: \$0 Total: \$180,000  
*Prin. Invest.:* G R DIAK  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3513 UNIVERSITY OF WISCONSIN - MADISON 9411**  
 INTEGRATING BIOGEOCHEMICAL ECOLOGICAL AND HYDROLOG DYNAMIC  
 BIOSPHERE  
 11/18/1996 - 11/14/2000 FY00: \$0 Total: \$903,971  
*Prin. Invest.:* J A FOLEY  
*Tech. Officer:* GSFC/D E WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3524 UNIVERSITY OF WISCONSIN - MADISON 9412**  
 STUDIES OF THE HOT INTERSTELLAR MEDIUM AND HALO OF STRUCTURE  
 & SPECTRAL CHARACTERISTICS OF THE LOW E  
 11/13/1996 - 05/14/2001 FY00: \$139,000 Total: \$431,390  
*Prin. Invest.:* W T SANDERS, NONE  
*Tech. Officer:* GSFC/D K WEST  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 3769 UNIVERSITY OF WISCONSIN - MADISON 9413**  
 NEW MATHEMATICAL METHODS FOR VARIATIONAL OBJECTIVE ESTIMA-  
 TION  
 02/13/1997 - 12/31/2000 FY00: \$90,000 Total: \$360,000  
*Prin. Invest.:* G WAHBA  
*Tech. Officer:* GSFC/K H BERGMAN  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 3943 UNIVERSITY OF WISCONSIN - MADISON 9414**  
 COLLABORATIVE ANALYSIS AND VISUALIZATION OF SPACE JAVA AND  
 VISAD  
 03/03/1997 - 02/28/2000 FY00: \$0 Total: \$437,000  
 Prin. Invest.: D T SANDERS  
 Tech. Officer: GSFC/J BREDEKAMP  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 4398 UNIVERSITY OF WISCONSIN - MADISON 9415**  
 MODELING AND ANALYSIS OF GLOBAL AND REGIONAL CLIMA TO  
 ATMOSPHERIC HYDROLOGIC PROCESSES  
 04/18/1997 - 05/31/2000 FY00: \$0 Total: \$330,000  
 Prin. Invest.: D R JOHNSON  
 Tech. Officer: GSFC/S SCHUBERT  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4484 UNIVERSITY OF WISCONSIN - MADISON 9416**  
 CO-INVESTIGATOR TO NRA-96-OSS-07 "PRECISION BALLOON OF ANISO-  
 TROPY IN THE CMBR"  
 05/30/1997 - 05/31/2000 FY00: \$0 Total: \$123,000  
 Prin. Invest.: P TIMBIE  
 Tech. Officer: GSFC/R SILVERBERG  
 CASE Category: 13 - PHYSICS

**NAG 5 4596 UNIVERSITY OF WISCONSIN - MADISON 9417**  
 MOLECULAR CLONING OF THE ARABIDOPSIS THAILIANA AGR  
 05/16/1997 - 02/29/2000 FY00: \$0 Total: \$283,462  
 Prin. Invest.: P MASSON  
 Tech. Officer: GSFC/T SCOTT  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 5 4751 UNIVERSITY OF WISCONSIN - MADISON 9418**  
 CHARACTERIZING THE SPATIAL AND TEMPORAL DISTRIBUTION THICKNESS  
 OVER THE ATLANTIC BASIN UTILIZING GOES-  
 06/17/1997 - 05/31/2000 FY00: \$0 Total: \$150,000  
 Prin. Invest.: E PRINS  
 Tech. Officer: GSFC/B N HOLBEN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 4761 UNIVERSITY OF WISCONSIN - MADISON 9419**  
 AN EUVE STUDY OF THE B STARS EPSILON CM A AND BETA  
 06/10/1997 - 06/14/1999 FY00: \$0 Total: \$14,478  
 Prin. Invest.: J P CASSINELLI  
 Tech. Officer: GSFC/R J OLIVERSEN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4874 UNIVERSITY OF WISCONSIN - MADISON 9420**  
 THE DIURNAL CYCLE FROM HISTORICAL GEOSTATIONARY DATA  
 10/03/1997 - 12/31/1999 FY00: \$0 Total: \$399,267  
 Prin. Invest.: F P BRETHERTON  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 5252 UNIVERSITY OF WISCONSIN - MADISON 9421**  
 FLIGHT OF FAR-ULTRAVIOLET SPECTROPOLARIMETER (FUSP) AND  
 DEVELOPMENT AND FLIGHT OF CUPID PI NORDSIECK  
 02/04/2000 - 02/03/2003 FY00: \$395,640 Total: \$395,640  
 Prin. Invest.: K H NORDSIECK, NONE  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5253 UNIVERSITY OF WISCONSIN - MADISON 9422**  
 UV POLARIMETRIC OBSERVATIONS OF RESONANCE LINE AND DUST SCAT-  
 TERING  
 02/18/2000 - 02/03/2003 FY00: \$136,000 Total: \$136,000  
 Prin. Invest.: W HARIS  
 Tech. Officer: GSFC/W B JOHNSON  
 CASE Category: 13 - PHYSICS

**NAG 5 5270 UNIVERSITY OF WISCONSIN - MADISON 9423**  
 STUDIES OF THE COSMIC X-RAY BACKGROUND FIRST YEAR FUNDING  
 04/11/2000 - 04/06/2003 FY00: \$317,000 Total: \$317,000  
 Prin. Invest.: D MCCAMMON  
 Tech. Officer: GSFC/J BRINTON  
 CASE Category: 13 - PHYSICS

**NAG 5 5272 UNIVERSITY OF WISCONSIN - MADISON 9424**  
 FIRST FUNDING FOR PHASE 1 OF CIRRUS PROJECT FIRST FUNDING FOR  
 PHASE 1 OF CIRRUS PROJECT  
 04/17/2000 - 04/13/2006 FY00: \$299,808 Total: \$299,808  
 Prin. Invest.: S ACKERMAN  
 Tech. Officer: GSFC/D L PIERCE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 6032 UNIVERSITY OF WISCONSIN - MADISON 9425**  
 THE EVOLUTION OF GALAXY IMAGE STRUCTURE TO Z=3  
 10/08/1997 - 10/14/2001 FY00: \$53,300 Total: \$214,900  
 Prin. Invest.: M BERSHADY  
 Tech. Officer: GSFC/D WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6248 UNIVERSITY OF WISCONSIN - MADISON 9426**  
 PLANETARY IMAGING FOURIER TRANSFORM SPECTROMETER  
 08/19/1997 - 07/31/2000 FY00: \$68,000 Total: \$405,000  
 Prin. Invest.: D A SROMOVSKY  
 Tech. Officer: GSFC/B CAMPBELL  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NAG 5 6342 UNIVERSITY OF WISCONSIN - MADISON 9427**  
 THE ISOTOPIC COMPOSITION OF IRON: A CHEMICAL FINGERPRINT  
 09/15/1997 - 08/31/1999 FY00: \$0 Total: \$63,000  
 Prin. Invest.: B L BEARD  
 Tech. Officer: GSFC/J BOYCE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6457 UNIVERSITY OF WISCONSIN - MADISON 9428**  
 VALIDATION OF ASTER AND MODIS SURFACE-TEMPERATURE AND  
 VEGETATION PRODUCTS WITH SURFACE-FLUX APPLICATIONS  
 10/15/1997 - 09/30/2001 FY00: \$232,916 Total: \$649,477  
 Prin. Invest.: S T GOWER  
 Tech. Officer: GSFC/D O STARR  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 5 6535 UNIVERSITY OF WISCONSIN - MADISON 9429**  
 REMOTE SENSING TEACHING AND RESEARCH IN SUPPORT OF CREATING  
 A VISION FOR THE ENVIRONMENT AS A WHOLE  
 10/24/1997 - 09/30/1999 FY00: \$0 Total: \$423,969  
 Prin. Invest.: D MACKAY  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

<p><b>NAG 5 6546 UNIVERSITY OF WISCONSIN - MADISON 9430</b>            SYNOPTIC MONITORING OF THE IO TORUS: SPECTROSCOPY, DOPPLER IMAGERY, AND PHOTOMETRY            10/29/1997 - 10/31/2000 FY00: \$6,708 Total: \$151,084  <i>Prin. Invest.:</i> F SCHERB  <i>Tech. Officer:</i> GSFC/R OLIVERSEN            CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7296 UNIVERSITY OF WISCONSIN - MADISON 9438</b>            CARBON BUDGETS FOR BOREAS AND OTHER BOREAL FORESTS : TOWARDS A BETTER UNDERSTANDING OF FACTORS IN            04/24/1998 - 04/30/2000 FY00: \$18,105 Total: \$148,350  <i>Prin. Invest.:</i> S T GOWER  <i>Tech. Officer:</i> GSFC/D E WICKLAND            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>
<p><b>NAG 5 6787 UNIVERSITY OF WISCONSIN - MADISON 9431</b>            GROUND-BASED OBSERVATION OF O<sub>2</sub> 6300A EMISSION FROM IO'S ATMOSPHERE            02/06/1998 - 03/31/2000 FY00: \$0 Total: \$180,000  <i>Prin. Invest.:</i> F SCHERB  <i>Tech. Officer:</i> GSFC/T MORGAN            CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7418 UNIVERSITY OF WISCONSIN - MADISON 9439</b>            SPECTRAL AND RADIOMETRIC CALIBRATION OF THE IMG FOR ADEOS: CHARACTERIZATION AND VALIDATION            06/02/1998 - 05/31/2000 FY00: \$0 Total: \$193,018  <i>Prin. Invest.:</i> H E REVERCOMB  <i>Tech. Officer:</i> GSFC/O W THIELE            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 5 6788 UNIVERSITY OF WISCONSIN - MADISON 9432</b>            CLOUDS ON NEPTUNE: MOTIONS, EVOLUTION, STRUCTURE            02/06/1998 - 03/31/2001 FY00: \$84,780 Total: \$230,780  <i>Prin. Invest.:</i> L A SROMOVSKY  <i>Tech. Officer:</i> GSFC/T MORGAN            CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7444 UNIVERSITY OF WISCONSIN - MADISON 9440</b>            A COMPREHENSIVE INVESTIGATION OF THE STRUCTURING OF THE INTERSTELLAR MEDIUM BY MASSIVE STARS - L            06/09/1998 - 06/14/2000 FY00: \$0 Total: \$80,000  <i>Prin. Invest.:</i> B P WAKKER  <i>Tech. Officer:</i> GSFC/D K WEST            CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 6833 UNIVERSITY OF WISCONSIN - MADISON 9433</b>            THE MEASUREMENT OF VACUUM ULTRAVIOLET ATOMIC TRANSITION PROBABILITIES OF ASTROPHYSICAL INTEREST            01/07/1998 - 12/31/2000 FY00: \$84,780 Total: \$264,780  <i>Prin. Invest.:</i> J LAWLER  <i>Tech. Officer:</i> GSFC/H HASAN            CASE Category: 11 - ASTRONOMY</p>	<p><b>NAG 5 7572 UNIVERSITY OF WISCONSIN - MADISON 9441</b>            "A STUDY OF ATMOSPHERIC SCATTERING CONTRIBUTIONS TO GLAS LIDAR RETURNS FROM THE EARTH'S SURFACE"            07/24/1998 - 03/31/2001 FY00: \$60,000 Total: \$140,000  <i>Prin. Invest.:</i> E W ELORANTA  <i>Tech. Officer:</i> GSFC/J D SPINHIRNE            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 5 7026 UNIVERSITY OF WISCONSIN - MADISON 9434</b>            AN ULTRA-LOW BANDWIDTH DIGITAL IMAGING SYSTEM FOR SPACECRAFT            02/26/1998 - 09/30/2000 FY00: \$0 Total: \$138,000  <i>Prin. Invest.:</i> J W PERCIVAL  <i>Tech. Officer:</i> GSFC/R SPAGNUOLO            CASE Category: 42 - ASTRONAUTICAL ENGR</p>	<p><b>NAG 5 7605 UNIVERSITY OF WISCONSIN - MADISON 9442</b>            CRITICAL REVIEW OF CHINESE RESEARCH ON THE SOLAR INFLUENCES ON CLIMATE            07/22/1998 - 07/31/2001 FY00: \$76,605 Total: \$218,976  <i>Prin. Invest.:</i> P WANG  <i>Tech. Officer:</i> GSFC/J SHARBER            CASE Category: 11 - ASTRONOMY</p>
<p><b>NAG 5 7101 UNIVERSITY OF WISCONSIN - MADISON 9435</b>            A SALT PILL ENGINEERING MODEL AND ADIABATIC DEMAGNETIZATION REFRIGERATOR (ADR) DESIGN            03/13/1998 - 03/31/2000 FY00: \$0 Total: \$300,000  <i>Prin. Invest.:</i> D MCCAMMON  <i>Tech. Officer:</i> GSFC/R KELLEY            CASE Category: 13 - PHYSICS</p>	<p><b>NAG 5 7626 UNIVERSITY OF WISCONSIN - MADISON 9443</b>            ANALYSIS OF THE IUE SPECTRA OBTAINED DURING THE SHOEMAKER/LEVY ENCOUNTER            08/03/1998 - 09/30/1999 FY00: \$0 Total: \$82,865  <i>Prin. Invest.:</i> D M HARRIS  <i>Tech. Officer:</i> GSFC/R BEEBE            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 5 7192 UNIVERSITY OF WISCONSIN - MADISON 9436</b>            ENHANCEMENTS TO THE GOES ARCHIVE            03/23/1998 - 03/31/2000 FY00: \$0 Total: \$132,561  <i>Prin. Invest.:</i> F BRETHERTON  <i>Tech. Officer:</i> GSFC/J DODGE            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	<p><b>NAG 5 7661 UNIVERSITY OF WISCONSIN - MADISON 9444</b>            A STUDY OF UNCERTAINTIES FOR MODIS CLOUD RETRIEVALS OF OPTICAL THICKNESS AND EFFECTIVE RADIUS            09/02/1998 - 09/30/2001 FY00: \$99,068 Total: \$159,677  <i>Prin. Invest.:</i> D PINCUS  <i>Tech. Officer:</i> GSFC/D STARR            CASE Category: 31 - ATMOSPHERIC SCIENCE</p>
<p><b>NAG 5 7214 UNIVERSITY OF WISCONSIN - MADISON 9437</b>            PRESIDENTIAL EARLY CAREER AWARD FOR SCIENTISTS AND ENGINEERS            04/06/1998 - 04/30/2001 FY00: \$100,000 Total: \$266,666  <i>Prin. Invest.:</i> J FOLEY, NONE  <i>Tech. Officer:</i> GSFC/D E WICKLAND            CASE Category: 39 - ENVIRONMENTAL SCI, OTHER</p>	



**NAG 5 7931 UNIVERSITY OF WISCONSIN - MADISON 9445**  
 PHYSICS OF AN UNSTABLE WIND FROM THE UNSTABLE STAR P CYGNI  
 ADP-98  
 12/14/1998 - 12/14/2000 FY00: \$60,000 Total: \$121,000  
 Prin. Invest.: K H NORDSIECK  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 7952 UNIVERSITY OF WISCONSIN - MADISON 9446**  
 INTEGRATED STUDIES OF COMET C/199501 (HALE-BOPP) USING THE  
 RESULTS OF THE UNIV W/GSFC OBSER CAMPAI  
 12/17/1998 - 12/31/2000 FY00: \$86,687 Total: \$177,899  
 Prin. Invest.: D M HARRIS  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8057 UNIVERSITY OF WISCONSIN - MADISON 9447**  
 INTERPRETATION OF RADIATIVE ENERGY FLUXES IN JUPIT ER'S  
 ATMOSPHERE  
 01/15/1999 - 01/31/2001 FY00: \$66,883 Total: \$128,085  
 Prin. Invest.: L A SROMOVSKY  
 Tech. Officer: GSFC/R BEEBE  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8069 UNIVERSITY OF WISCONSIN - MADISON 9448**  
 BIGFOOT--CHARACTERIZING LAND COVER, LAI AND NPP AT THE LAND-  
 SCALE SCALE FOR EOS/MODIS VALIDATION  
 01/28/1999 - 12/31/2000 FY00: \$228,297 Total: \$405,637  
 Prin. Invest.: S T GOWER  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8250 UNIVERSITY OF WISCONSIN - MADISON 9449**  
 TO CONSTRUCT AN EOS DIRECT BROADCAST RECEPTION FAC ILITY AT  
 THE UNIVERSITY OF WISCONSIN-MADI  
 02/10/1999 - 02/14/2000 FY00: \$0 Total: \$350,750  
 Prin. Invest.: R J FOX  
 Tech. Officer: GSFC/J DODGE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8280 UNIVERSITY OF WISCONSIN - MADISON 9450**  
 THE HISTORY AND INITIAL MASS FUNCTION OF THE LAMBDA A ORIONIS  
 STAR FORMING REGION(ADP 98)  
 04/15/1999 - 02/28/2001 FY00: \$0 Total: \$56,505  
 Prin. Invest.: R D MATHIEU  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8333 UNIVERSITY OF WISCONSIN - MADISON 9451**  
 X-RAY OBSERVATIONS OF INTRIGUING NOVAE (ADP98)  
 03/02/1999 - 02/29/2000 FY00: \$0 Total: \$29,190  
 Prin. Invest.: H B OGELMAN  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8417 UNIVERSITY OF WISCONSIN - MADISON 9452**  
 THEORETICAL STUDIES OF THE DIFFUSE INTERSTELLAR ME DIUM (ATP 98)  
 03/25/1999 - 03/31/2000 FY00: \$0 Total: \$90,100  
 Prin. Invest.: D P COX  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8537 UNIVERSITY OF WISCONSIN - MADISON 9453**  
 X-RAY DETECTORS FOR SPECTROSCOPY OF 0.1-0.3 KEV EXTENDED  
 SOURCES WITH SUB-EV RESOLUTION.  
 07/09/1999 - 07/14/2000 FY00: \$0 Total: \$144,616  
 Prin. Invest.: D MCCAMMON  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 13 - PHYSICS

**NAG 5 8554 UNIVERSITY OF WISCONSIN - MADISON 9454**  
 LONG-TERM WATER FLUX CHANGES FROM CONVERTING OLD- GROWTH  
 PINE FOREST TO HARDWOOD FORESTS IN NORTH  
 06/17/1999 - 06/30/2001 FY00: \$116,826 Total: \$200,576  
 Prin. Invest.: D MACKAY  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8588 UNIVERSITY OF WISCONSIN - MADISON 9455**  
 A LOW COST ATTITUDE DETERMINATION SYSTEM & IMAGER WITH  
 EMBEDDED COMPRESSION.  
 07/09/1999 - 07/14/2001 FY00: \$261,202 Total: \$560,530  
 Prin. Invest.: J W PERCIVAL  
 Tech. Officer: GSFC/G MUCKLOW  
 CASE Category: 42 - ASTRONAUTICAL ENGR

**NAG 5 8597 UNIVERSITY OF WISCONSIN - MADISON 9456**  
 THE ROLE OF LAND USE AND LAND COVER CHANGE ON THE TERRES-  
 TRIAL WATER BALANCE OF THE MISSISSIPPI BASIN  
 06/11/1999 - 06/30/2001 FY00: \$109,186 Total: \$182,886  
 Prin. Invest.: J A FOLEY  
 Tech. Officer: GSFC/E T ENGMAN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8625 UNIVERSITY OF WISCONSIN - MADISON 9457**  
 DOCUMENTING, UNDERSTANDING, AND PREDICTING THE AGGREGATE  
 SURFACE RADIATION FLUXES FOR SHEBA  
 08/31/1999 - 06/14/2000 FY00: -\$18,752 Total: \$57,159  
 Prin. Invest.: J R KEY  
 Tech. Officer: GSFC/S GOGINENI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 8639 UNIVERSITY OF WISCONSIN - MADISON 9458**  
 SIMPLE MODELS OF THE SPATIAL DISTRIBUTION OF CLOUD RADIATIVE  
 PROPERTIES FOR REMOTE SENSING STUDIES  
 06/29/1999 - 06/30/2001 FY00: \$43,480 Total: \$90,480  
 Prin. Invest.: R PINCUS  
 Tech. Officer: GSFC/W WISCOMBE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 8652 UNIVERSITY OF WISCONSIN - MADISON 9459**  
 CONTINUING INVESTIGATION OF SINGLE-PHOTON CALORIMETERS FOR  
 X-RAY SPECTROSCOPY  
 08/19/1999 - 09/30/2000 FY00: \$0 Total: \$100,000  
 Prin. Invest.: D MCCAMMON  
 Tech. Officer: GSFC/R L KELLEY  
 CASE Category: 11 - ASTRONOMY

**NAG 5 8667 UNIVERSITY OF WISCONSIN - MADISON 9460**  
 OBSERVATIONAL CONSTRAINTS FOR THE GALACTIC FOUNDATION - FUSE  
 01/24/2000 - 01/31/2001 FY00: \$56,200 Total: \$56,200  
 Prin. Invest.: R BENJAMIN, NONE  
 Tech. Officer: GSFC/G SONNEBORN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 9024 UNIVERSITY OF WISCONSIN - MADISON 9461**  
 OBSERVATIONAL CONSTRAINTS FOR THE GALACTIC FOUNTAIN-FUSE  
 HIGH VELOCITY CLOUDS: ORIGIN  
 02/28/2000 - 02/28/2001 FY00: \$70,459 Total: \$70,459  
*Prin. Invest.:* B P WAKKER  
*Tech. Officer:* GSFC/G SONNEBORN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9026 UNIVERSITY OF WISCONSIN - MADISON 9462**  
 EARTH SCIENCE COMPONENT FOR ACADEMIC PROFESSIONAL ENHANCE-  
 MENT (ESCAPE)  
 02/04/2000 - 02/14/2001 FY00: \$43,194 Total: \$43,194  
*Prin. Invest.:* S S LIMAYE  
*Tech. Officer:* GSFC/N KHAZENIE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9084 UNIVERSITY OF WISCONSIN - MADISON 9463**  
 STATISTICAL ANALYSIS OF ATMOSPHERIC OZONE DATA FOR TREND  
 FEATURES & STUDIES ON STATISTICAL METHODOLOGY  
 02/16/2000 - 08/31/2001 FY00: \$30,000 Total: \$30,000  
*Prin. Invest.:* G C REINSEL  
*Tech. Officer:* GSFC/P K BHARTIA  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9179 UNIVERSITY OF WISCONSIN - MADISON 9464**  
 THE ORIGINS OF GALACTIC HALO GAS: ACCRETION AND FOUNTAIN  
 FLOWS (LISA 99)  
 03/07/2000 - 03/14/2001 FY00: \$97,216 Total: \$97,216  
*Prin. Invest.:* B P WAKKER  
*Tech. Officer:* GSFC/R J OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9226 UNIVERSITY OF WISCONSIN - MADISON 9465**  
 SPECTRAL DIAGNOSTICS FOR EARLY-TYPE STARS IN SUPPORT OF HIGH-  
 RESOLUTION SATELLITE OBSERVATIONS (LTS)  
 03/09/2000 - 02/28/2001 FY00: \$19,027 Total: \$19,027  
*Prin. Invest.:* J CASSINELLI  
*Tech. Officer:* GSFC/R OLIVERSEN  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9295 UNIVERSITY OF WISCONSIN - MADISON 9466**  
 DIAGNOSTIC & PREDICTIVE STUDIES OF THE EARTH'S HYDROLOGIC  
 CYCLE USING MODEL-ASSIMILATED & REMOTE  
 04/13/2000 - 12/31/2000 FY00: \$110,000 Total: \$110,000  
*Prin. Invest.:* D R JOHNSON  
*Tech. Officer:* GSFC/S SCHUBERT  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9389 UNIVERSITY OF WISCONSIN - MADISON 9467**  
 INTERNATIONAL MODIS/AIRS PROCESSING PACKAGE (IMAPP) FOR EOS  
 DIRECT BROADCAST DATA  
 04/04/2000 - 04/14/2003 FY00: \$250,000 Total: \$250,000  
*Prin. Invest.:* A HUANG  
*Tech. Officer:* GSFC/J DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9436 UNIVERSITY OF WISCONSIN - MADISON 9468**  
 MONITORING AND MODELING OF LAND-SURFACE ENERGY AND WATER  
 FLUXES USING AN ENHANCED PATHFINDER DATABASE  
 04/13/2000 - 04/30/2001 FY00: \$151,178 Total: \$151,178  
*Prin. Invest.:* G DIAK  
*Tech. Officer:* GSFC/J DODGE  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9452 UNIVERSITY OF WISCONSIN - MADISON 9469**  
 HUMAN ACTIVITY AND A CHANGING BIOSPHERE  
 04/13/2000 - 04/30/2001 FY00: \$197,146 Total: \$197,146  
*Prin. Invest.:* J FOLLEY  
*Tech. Officer:* GSFC/D WICKLAND  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 9483 UNIVERSITY OF WISCONSIN - MADISON 9470**  
 COLLABORATIVE ANALYSIS AND VISUALIZATION OF SPACE SCIENCE DATA  
 USING JAVA AND VISAD  
 04/21/2000 - 04/30/2001 FY00: \$85,000 Total: \$85,000  
*Prin. Invest.:* W T SANDERS  
*Tech. Officer:* GSFC/J BREDEKAMP  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9567 UNIVERSITY OF WISCONSIN - MADISON 9471**  
 PRECISION BALLOON-BORNE MEASUREMENTS OF THE ANISOTROPY IN  
 THE COSMIC INFRARED & FAR-INFRARED BACKGROUND  
 05/05/2000 - 05/14/2001 FY00: \$79,980 Total: \$79,980  
*Prin. Invest.:* P TIMBE  
*Tech. Officer:* GSFC/E S CHENG  
*CASE Category:* 11 - ASTRONOMY

**NAG 5 9673 UNIVERSITY OF WISCONSIN - MADISON 9472**  
 DETERMINATION OF MOMENTUM TRANSPORT, ORGANIZATION, &  
 TEMPORAL INTENSITY OF DEEP TROPICAL CONVECTION  
 06/01/2000 - 05/31/2001 FY00: \$20,339 Total: \$20,339  
*Prin. Invest.:* J R MECIKALSKI, NONE  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9688 UNIVERSITY OF WISCONSIN - MADISON 9473**  
 APPLICATION OF REMOTE SENSING TO ASSESS THE IMPACT OF SHORT  
 TERM CLIMATE VARIABILITY ON COASTAL SEDIMENT  
 06/14/2000 - 06/14/2001 FY00: \$50,000 Total: \$50,000  
*Prin. Invest.:* P MENZEL  
*Tech. Officer:* GSFC/H V FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 9712 UNIVERSITY OF WISCONSIN - MADISON 9474**  
 GLAST: A GEV ALL-SKY MONITOR OF TRANSIENT PHENOMENA  
 06/15/2000 - 06/14/2001 FY00: \$19,995 Total: \$19,995  
*Prin. Invest.:* P DINGUS  
*Tech. Officer:* GSFC/S LAMBROS  
*CASE Category:* 13 - PHYSICS

**NAG 5 9894 UNIVERSITY OF WISCONSIN - MADISON 9475**  
 IMPROVED TRMM RAINFALL ESTIMATES FROM A COMBINATION OF  
 SATELLITE & SURFACE HYDROLOGICAL OBSERVATIONS  
 08/25/2000 - 11/30/2000 FY00: \$58,020 Total: \$58,020  
*Prin. Invest.:* G W PETTY  
*Tech. Officer:* GSFC/R J LAWRENCE  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NAG 5 9931 UNIVERSITY OF WISCONSIN - MADISON 9476**  
 THE NEARBY STARBURST DWARF GALAXY NGC 625  
 09/07/2000 - 09/14/2001 FY00: \$6,400 Total: \$6,400  
 Prin. Invest.: H A KOBULNICKY  
 Tech. Officer: GSFC/D F MUSHOTZKY  
 CASE Category: 11 - ASTRONOMY

**NAG 8 1276 UNIVERSITY OF WISCONSIN - MADISON 9477**  
 ANALYSIS OF CONTAINERLESS PROCESSING & UNDERCOOLED SOLIDIFICATION MICROSTRUCTURES  
 04/22/1996 - 07/31/2000 FY00: \$100,000 Total: \$400,000  
 Prin. Invest.: J H PEREPEZKO  
 Tech. Officer: MSFC/D R WOODARD, MSFC/R W ALLEN  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1320 UNIVERSITY OF WISCONSIN - MADISON 9478**  
 RESEARCH DEVELOPMENT OF ATMOSPHERIC PHYSICAL RETRIEVAL METHODOLOGIES USING SATELLITE DATA  
 01/31/1997 - 01/31/2002 FY00: \$50,000 Total: \$200,000  
 Prin. Invest.: G DIAK  
 Tech. Officer: MSFC/F R ROBERTSON, MSFC/J ARNOLD  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 8 1459 UNIVERSITY OF WISCONSIN - MADISON 9479**  
 R/S PHYSICAL SIMULATION OF MARANGONI CONVECTION IN WELD POOLS  
 02/01/1998 - 01/31/2002 FY00: \$95,000 Total: \$250,167  
 Prin. Invest.: S KOU  
 Tech. Officer: MSFC/P M DOTY  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NAG 8 1480 UNIVERSITY OF WISCONSIN - MADISON 9480**  
 R/S DYNAMIC REDUCTION AND THE CREATION OF FINE GRAINED CERAMICS FROM INVISCID MELTS  
 02/01/1998 - 01/31/2002 FY00: \$80,000 Total: \$226,667  
 Prin. Invest.: R F COOPER  
 Tech. Officer: MSFC/C TALLEY  
 CASE Category: 13 - PHYSICS

**NAG 8 1651 UNIVERSITY OF WISCONSIN - MADISON 9481**  
 INVESTIGATION OF SENSOR AND ACTUATOR PLACEMENT TECHNIQUES  
 11/09/1999 - 11/15/2000 FY00: \$32,640 Total: \$32,640  
 Prin. Invest.: D C KAMMER  
 Tech. Officer: MSFC/M L TINKER, MSFC/F M BUGG  
 CASE Category: 46 - MECHANICAL ENGR

**NAG 8 1672 UNIVERSITY OF WISCONSIN - MADISON 9482**  
 ANALYSIS OF CONTAINERLESS SOLIDIFICATION MICRO- STRUCTURES IN UNDERCOOLED MELTS AND COMPOSITE SYS  
 05/26/2000 - 11/30/2003 FY00: \$40,000 Total: \$40,000  
 Prin. Invest.: J N PEREPEZKO  
 Tech. Officer: MSFC/P DOTY  
 CASE Category: 19 - PHYSICAL SCIENCE, OTHER

**NAG 8 1719 UNIVERSITY OF WISCONSIN - MADISON 9483**  
 FILED REVERSED CONFIGURATION FUSION PROPULSION  
 05/04/2000 - 03/01/2001 FY00: \$32,000 Total: \$32,000  
 Prin. Invest.: J SANTARIUS  
 Tech. Officer: MSFC/F THEO  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 9 1008 UNIVERSITY OF WISCONSIN - MADISON 9484**  
 CONTROL-CREW NETWORK COMMUNICATIONS DURING ROUTINE AND NON-ROUTINE EVENTS  
 05/01/1998 - 10/21/2000 FY00: \$60,234 Total: \$304,650  
 Prin. Invest.: B S CALDWELL  
 Tech. Officer: JSC/J DETROVE  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG 9 1039 UNIVERSITY OF WISCONSIN - MADISON 9485**  
 MEASUREMENT OF BODY COMPOSITION FOR NUTRITIONAL ASSESSMENT IN MICROGRAVITY  
 06/13/1998 - 07/15/2001 FY00: \$134,319 Total: \$284,907  
 Prin. Invest.: D SCHOELLER  
 Tech. Officer: KSC/C LLYOD  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAGW 3877 UNIVERSITY OF WISCONSIN - MADISON 9486**  
 NAGW-3877/B UNIV. WISC MADISON "ACCRET. DISKS & PL ANET. SYSTE. IN NEWLY FORMED, MASSIVE STARS."  
 02/28/1994 - 09/30/1998 FY00: \$0 Total: \$235,685  
 Prin. Invest.: E CHURCHWELL  
 Tech. Officer: HQ/J H RAHE  
 CASE Category: 11 - ASTRONOMY

**NAG13 99008 UNIVERSITY OF WISCONSIN - MADISON 9487**  
 MIDWEST CENTER FOR NATURAL RESOURCE MGMT SAME  
 03/03/1999 - 03/02/2002 FY00: \$0 Total: \$1,500,000  
 Prin. Invest.: G DIAK  
 Tech. Officer: SSC/C HILL  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAS 1 00070 UNIVERSITY OF WISCONSIN - MADISON 9488**  
 ENG. & SCIENTIFIC SUPPORT FOR NAST-I  
 09/15/2000 - 04/30/2001 FY00: \$624,051 Total: \$624,051  
 Prin. Invest.: F A BEST  
 Tech. Officer: LARC/A ROYAL  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 96004 UNIVERSITY OF WISCONSIN - MADISON 9489**  
 IDIQ FOR SATELLITE DATA/SITE LICENSE  
 05/01/1996 - 04/29/2001 FY00: \$81,908 Total: \$317,171  
 Prin. Invest.: N APPLICABLE  
 Tech. Officer: LARC/R C HUFFMAN, JR., LARC/P MINNIS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 96030 UNIVERSITY OF WISCONSIN - MADISON 9490**  
 CLIMATOLOGICAL AND MODELING SAGE DATA  
 06/20/1996 - 06/19/1999 FY00: \$0 Total: \$304,077  
 Prin. Invest.: M H HITCHMAN  
 Tech. Officer: LARC/G L MADDREA  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 99106 UNIVERSITY OF WISCONSIN - MADISON 9491**  
 ANALYSIS OF COMBINED PICASSO-CENA AND MODIS DATA  
 05/17/1999 - 05/16/2001 FY00: \$72,400 Total: \$80,400  
 Prin. Invest.: S A ACKERMAN  
 Tech. Officer: LARC/G GIBSON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 99117 UNIVERSITY OF WISCONSIN - MADISON 9492**  
 RESEARCH SUPPORT FOR GIFTS PROGRAM  
 05/11/1999 - 09/30/1999 FY00: \$30,000 Total: \$216,000  
 Prin. Invest.: H REVERCOMB, F BEST, A HUANG  
 Tech. Officer: LARC/V S PARSON, LARC/F W HARRISON  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 1 99123 UNIVERSITY OF WISCONSIN - MADISON 9493**  
 ENGINEERING & SCIENTIFIC SUPPORT FOR THE NATIONAL- POLAR-OR-  
 BITING OPERATIONAL ENVIRON SATELLITE SYS  
 07/19/1999 - 12/31/1999 FY00: \$0 Total: \$271,478  
 Prin. Invest.: H E REVERCOMB  
 Tech. Officer: LARC/V S PARSONS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 30131 UNIVERSITY OF WISCONSIN - MADISON 9494**  
 SPACE TELESCOPE IMAGINE SPECTROGRAPH SUPPORT  
 09/22/1987 - 01/05/2001 FY00: \$170,000 Total: \$1,133,954  
 Prin. Invest.: F ROESLER  
 Tech. Officer: GSFC/H D VITAGLIANO  
 CASE Category: 11 - ASTRONOMY

**NAS 5 31367 UNIVERSITY OF WISCONSIN - MADISON 9495**  
 EOS STUDY  
 12/30/1991 - 12/14/2001 FY00: \$864,500 Total: \$4,783,345  
 Prin. Invest.: P MENZEL  
 Tech. Officer: GSFC/D TOLL, GSFC/B CONBOY  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 31375 UNIVERSITY OF WISCONSIN - MADISON 9496**  
 EOS AIRS INVESTIGATION  
 01/13/1992 - 12/14/2001 FY00: \$365,000 Total: \$2,227,889  
 Prin. Invest.: H REVERCOMB  
 Tech. Officer: GSFC/E KREINS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAS 5 31377 UNIVERSITY OF WISCONSIN - MADISON 9497**  
 EOS INVESTIGATION: ALGORITHM DEVELOPMENT WITH HIS/ AIRS  
 01/08/1992 - 12/14/2001 FY00: \$210,000 Total: \$1,788,640  
 Prin. Invest.: W L SMITH  
 Tech. Officer: GSFC/E KREINS  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 33015 UNIVERSITY OF WISCONSIN - MADISON 9498**  
 GLRS SCIENCE TEAM MEMBER STUDY  
 11/01/1989 - 11/30/1998 FY00: \$0 Total: \$531,119  
 Prin. Invest.: C BENTLEY  
 Tech. Officer: GSFC/G SOFFEN  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAS 5 99004 UNIVERSITY OF WISCONSIN - MADISON 9499**  
 GLAS SCIENCE TEAM LEADER.  
 11/25/1998 - 11/30/2004 FY00: \$94,000 Total: \$188,000  
 Prin. Invest.: C BENTLEY  
 Tech. Officer: GSFC/G SMITH  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 2 542 UNIVERSITY OF WISCONSIN - MADISON 9500**  
 PSYCHOPHYSICAL EVALUATION OF THREE-DIMENSIONAL AUDITORY  
 DISPLAYS  
 05/01/1998 - 03/31/2000 FY00: \$0 Total: \$1,583,828  
 Prin. Invest.: F L WIGHTMAN  
 Tech. Officer: ARC/E M WENZEL  
 CASE Category: 69 - PSYCHOLOGY, OTHER

**NCC 2 5260 UNIVERSITY OF WISCONSIN - MADISON 9501**  
 STUDY OF MEMORY SYSTEM PERFORMANCE FOR FLUID FLOW POST-  
 PROCESSING TOOLS  
 03/17/1998 - 10/31/1999 FY00: \$0 Total: \$66,630  
 Prin. Invest.: P CAO  
 Tech. Officer: ARC/M GERALD-YAMASAKI  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 2 5323 UNIVERSITY OF WISCONSIN - MADISON 9502**  
 TOWARDS A COMMON SERVICE SPECIFICATION & MATCHMAKING FRAME-  
 WORK FOR GRID APPLICATIONS  
 05/07/1999 - 04/30/2001 FY00: \$20,000 Total: \$40,000  
 Prin. Invest.: M LIVNY  
 Tech. Officer: ARC/W E JOHNSTON, ARC/G F MORELLO  
 CASE Category: 22 - COMPUTER SCIENCE

**NCC 5 294 UNIVERSITY OF WISCONSIN - MADISON 9503**  
 HIGH RESOLUTION CARBON EXCHANGE OVER LARGE-SCALE AMAZONIA  
 BASED ON MODELING AND GOES SATELLITE  
 06/10/1998 - 12/31/2000 FY00: \$51,136 Total: \$114,774  
 Prin. Invest.: J M NORMAN  
 Tech. Officer: GSFC/D W DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 335 UNIVERSITY OF WISCONSIN - MADISON 9504**  
 THE EFFECTS OF TROPICAL FOREST CONVERSION: ECOLOGICAL  
 RESEARCH IN THE LARGE-SCALE BIOSPHERE-ATMOSPHERE  
 06/16/1998 - 12/31/2000 FY00: \$25,840 Total: \$66,895  
 Prin. Invest.: J FOLEY  
 Tech. Officer: GSFC/D DEERING  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NCC 5 354 UNIVERSITY OF WISCONSIN - MADISON 9505**  
 "GSFC COOPERATIVE GRADUATE RESEARCH ASSISTANTSHIPS"  
 08/04/1998 - 08/31/2000 FY00: \$74,644 Total: \$124,644  
 Prin. Invest.: M H HITCHMAN  
 Tech. Officer: GSFC/A J NEGRI  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 365 UNIVERSITY OF WISCONSIN - MADISON 9506**  
 MODELING WETLANDS AND THEIR ROLE IN HYDROLOGICAL AND  
 BIOGEOCHEMICAL CYCLES  
 09/24/1998 - 09/30/2000 FY00: \$0 Total: \$50,033  
 Prin. Invest.: J A FOLEY  
 Tech. Officer: HQ/L TRAVIS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 8 129 UNIVERSITY OF WISCONSIN - MADISON 9507**  
 R/S "CONTINUATION SUPPORT FOR WISCONSIN CENTER FOR SPACE  
 AUTHORIZATION & ROBOTICS"  
 01/30/1997 - 10/31/2000 FY00: \$2,785,591 Total: \$7,465,486  
 Prin. Invest.: W L ZHOU, J R BULAPrin. Invest.: NONE  
 Tech. Officer: MSFC/A L MATISAK  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NCC13 17 UNIVERSITY OF WISCONSIN - MADISON 9508**  
 VISITING INVESTIGATOR PROGRAM SANE  
 09/27/1996 - 12/31/1999 FY00: \$41,860 Total: \$516,860  
 Prin. Invest.: T M LILLESAND  
 Tech. Officer: SSC/D NORTON  
 CASE Category: 32 - GEOLOGICAL SCIENCE

**NCC13 00004 UNIVERSITY OF WISCONSIN - MADISON 9509**  
 MAXIMIZING MUTUAL OPPORTUNITIES: PARTNERSHIP AMONG NASA,  
 UW-MAD AND PRIVATE INDUSTRY  
 03/06/2000 - 03/05/2001 FY00: \$150,000 Total: \$150,000  
 Prin. Invest.: T LILLESAND  
 Tech. Officer: SSC/N SOVIK  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 2 52227 UNIVERSITY OF WISCONSIN - MADISON 9510**  
 EXPERIMENT MANAGEMENT SUPPORT FOR PERFORMANCE TUNING  
 LARGE-SCALE PARALLEL & DISTRIBUTED APPLICATION  
 08/04/1997 - 07/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: B P MILLER  
 Tech. Officer: ARC/C H SCHULBACH  
 CASE Category: 22 - COMPUTER SCIENCE

**NGT 5 46 UNIVERSITY OF WISCONSIN - MADISON 9511**  
 017RECISE MEASUREMENT OF COSMOLOGICAL PARAMETERS V COSMIC  
 MICROWAVE BACKGROUND ANISOTROPY  
 06/23/1997 - 06/30/2001 FY00: \$22,000 Total: \$88,000  
 Prin. Invest.: P TIMBIE  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 11 - ASTRONOMY

**NGT 5 70 UNIVERSITY OF WISCONSIN - MADISON 9512**  
 THE X-RAY QUANTUM CALORIMETER: HIGH RESOLUTION SPECTROSCOPY  
 FOR ASTROPHYSICAL X-RAY OBSERVATIONS  
 06/04/1998 - 06/30/1999 FY00: -\$10,655 Total: \$11,345  
 Prin. Invest.: D MCCAMMON  
 Tech. Officer: GSFC/M S BURRELL  
 CASE Category: 13 - PHYSICS

**NGT 5 30119 UNIVERSITY OF WISCONSIN - MADISON 9513**  
 EVALUATING THE ROLE OF LAND USE IN THE TERRESTRIAL BIOSPHERE  
 OVER THE LAST CENTURY-ESSF RECIPIENT: NA  
 10/01/1997 - 08/31/2000 FY00: \$0 Total: \$66,000  
 Prin. Invest.: J FOLEY  
 Tech. Officer: GSFC/G ASRAR  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30146 UNIVERSITY OF WISCONSIN - MADISON 9514**  
 POROELASTIC ANALYSIS OF COSEISMIC AND POSTSEISMIC DEFORMATION  
 ASSOCIATED WITH THE 1992 LANDERS, CALIF  
 08/31/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: H F WANG  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30160 UNIVERSITY OF WISCONSIN - MADISON 9515**  
 SCALE-DEPENDENT CLIMATE CHANGE DUE TO DEFORESTATION IN  
 AMAZONIA  
 08/31/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: W BRINKMANN  
 Tech. Officer: GSFC/M Y WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 30176 UNIVERSITY OF WISCONSIN - MADISON 9516**  
 EFFECTS OF LOGGING ACTIVITY ON BIOPHYSICAL PROCESSES AND  
 CARBON CYCLING WITHIN CANADIAN BOREAL FORE  
 08/12/1999 - 08/31/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: J FOLEY  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50039 UNIVERSITY OF WISCONSIN - MADISON 9517**  
 NEW COSMOLOGICAL PROBE: POLARIZATION OF THE COSMIC  
 08/04/1997 - 08/31/1999 FY00: \$0 Total: \$57,667  
 Prin. Invest.: TIMBIE  
 Tech. Officer: HQ/A N URRIDDEN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50121 UNIVERSITY OF WISCONSIN - MADISON 9518**  
 DUSTY PLASMAS IN GALACTIC HALOS  
 09/10/1997 - 07/31/1999 FY00: \$0 Total: \$44,000  
 Prin. Invest.: B D SAVAGE  
 Tech. Officer: HQ/A N URRIDDEN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50160 UNIVERSITY OF WISCONSIN - MADISON 9519**  
 ESTIMATING NET PRIMARY PRODUCTIVITY ALONG A RESOURCE AVAIL-  
 ABILITY GRADIENT USING NDVI IN A BLACK SP  
 10/02/1997 - 01/31/2001 FY00: \$0 Total: \$66,000  
 Prin. Invest.: S GOWER  
 Tech. Officer: HQ/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 50185 UNIVERSITY OF WISCONSIN - MADISON 9520**  
 PRECISION MEASUREMENTS OF THE POLARIZATION OF THE COSMIC  
 MICROWAVE BACKGROUND RADIATION  
 05/27/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: P TIMBIE  
 Tech. Officer: HQ/A N URRIDDEN  
 CASE Category: 13 - PHYSICS

**NGT 5 50295 UNIVERSITY OF WISCONSIN - MADISON 9521**  
 DWARF ELLIPTICALS IN CLUSTERS: THE FIRST GALAXIES STUDENT:  
 CHRISTOPHER CONSELICE  
 06/26/2000 - 06/30/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: J S GALLAGHER  
 Tech. Officer: GSFC/L SMITH  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 8 52865 UNIVERSITY OF WISCONSIN - MADISON 9522**  
 PARAMETERIZATION AND SCALE ISSUES ASSOCIATED WITH MACROSCALE  
 WATERSHED MODELING  
 07/27/1998 - 08/31/2001 FY00: \$22,000 Total: \$66,000  
 Prin. Invest.: J F CRUISE  
 Tech. Officer: MSFC/J F DOWDY  
 CASE Category: 49 - ENGINEERING, OTHER

**NCC 1 260 UNIVERSITY OF WISCONSIN - MILWAUKEE 9523**  
 MESON CONTRIBUTION TO SPACE RADIATIONS MESON CONTRIBUTION TO  
 SPACE RADIATIONS  
 08/13/1997 - 08/30/1999 FY00: \$7,994 Total: \$80,000  
 Prin. Invest.: J W NORBURY  
 Tech. Officer: LARC/F A CUCINOTTA, LARC/J W WILSON  
 CASE Category: 13 - PHYSICS

## WYOMING

## NASA'S UNIVERSITY PROGRAM

**NCC 1 354 UNIVERSITY OF WISCONSIN - MILWAUKEE 9524**  
 PION PRODUCTION CROSS SECTIONS  
 08/02/1999 - 06/26/2002 FY00: \$38,000 Total: \$68,671  
 Prin. Invest.: J W NORBURY  
 Tech. Officer: LARC/R C SINGLETERRY, JR., LARC/J W WILSON  
 CASE Category: 13 - PHYSICS

**NCC 3 600 UNIVERSITY OF WISCONSIN - MILWAUKEE 9525**  
 COMPUTATIONAL MODELING OF CRYSTAL GROWTH INCLUDING THERMO-  
 SOLUTAL MELT CONVECTION FOR MEPHISTO-4  
 03/02/1998 - 07/24/1999 FY00: \$0 Total: \$88,964  
 Prin. Invest.: S V GARIMELLA, H C DEGRON  
 Tech. Officer: GRC/W M FOSTER  
 CASE Category: 47 - METAL & MATERIALS ENGR

**NCC 8 173 UNIVERSITY OF WISCONSIN - MILWAUKEE 9526**  
 PC12 PHEOCHROMOCYTOMA CELLS: A PROVEN MODEL SYSTEM FOR  
 OPTIMIZING 3-D CELL CULTURE  
 03/01/1999 - 11/30/2002 FY00: \$131,252 Total: \$279,252  
 Prin. Invest.: P I LELKES  
 Tech. Officer: JSC/D R MORRISON  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NGT 1 52217 UNIVERSITY OF WISCONSIN - MILWAUKEE 9527**  
 GRADUATE STUDENT RESEARCHERS PROGRAM (GSRP)  
 06/01/1999 - 06/30/2001 FY00: \$22,000 Total: \$44,000  
 Prin. Invest.: S R BLATTNING, J W NORBURY  
 Tech. Officer: LARC/R C SINGLETERRY, JR., LARC/J W WILSON  
 CASE Category: 13 - PHYSICS

**NGT 5 40039 UNIVERSITY OF WISCONSIN - MILWAUKEE 9528**  
 THE NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM  
 01/29/1997 - 02/28/2001 FY00: \$331,250 Total: \$1,106,673  
 Prin. Invest.: J W NORBURY  
 Tech. Officer: GSFC/D E DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 8 1210 UNIVERSITY OF WISCONSIN @ WHITEWATER 9529**  
 JOVE  
 09/05/1995 - 06/31/1999 FY00: -\$200 Total: \$74,150  
 Prin. Invest.: D PHANORD  
 Tech. Officer: MSFC/D SIX  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 4106 UNIVERSITY OF WISCONSIN-OSHKOSH 9530**  
 REMOTE SENSING OF PHYTOPLANKTON PRODUCTION IN THE SOUTHERN  
 OCEAN  
 04/01/1997 - 03/31/2000 FY00: \$0 Total: \$79,528  
 Prin. Invest.: M P LIZOTTE  
 Tech. Officer: GSFC/K R ARRIGO  
 CASE Category: 33 - OCEANOGRAPHY

## WYOMING

**NAG 1 2164 UNIVERSITY OF WYOMING 9531**  
 EVALUATION OF SAGE II AND BALLOON-BARNE STRATO- SPHERIC  
 AEROSOL MEASUREMENTS  
 03/18/1999 - 12/31/2001 FY00: \$46,014 Total: \$91,565  
 Prin. Invest.: T DESHLER  
 Tech. Officer: LARC/G L MADDREA, LARC/L R POOLE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 877 UNIVERSITY OF WYOMING 9532**  
 COMPILING DOMAIN SPECIFIC PROGRAM SYNTHESIS SYSTEM S  
 01/10/1994 - 11/30/1998 FY00: \$0 Total: \$287,845  
 Prin. Invest.: J V BALLEEN  
 Tech. Officer: ARC/S LAU  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 4 208 UNIVERSITY OF WYOMING 9533**  
 REDUCTION OF BASE DRUG ON LAUNCH VEHICLES REDUCTION OF BASE  
 DRUG ON LAUNCH VEHICLES  
 05/22/2000 - 09/30/2000 FY00: \$35,410 Total: \$35,410  
 Prin. Invest.: D W NAUGHTON  
 Tech. Officer: DFRC/S A WHITMORE  
 CASE Category: 41 - AERONAUTICAL ENGR

**NAG 5 3861 UNIVERSITY OF WYOMING 9534**  
 ASSESSMENT OF CLIMATIC AND ANTHROPOGENIC IMPACTS O CYCLE  
 CONSTRAINED BY ATMOSPHERIC MEASUREMENTS AND  
 02/03/1997 - 01/14/2001 FY00: \$0 Total: \$129,885  
 Prin. Invest.: E HUNT, JR.  
 Tech. Officer: GSFC/D E WICKLAND  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 5 3835 UNIVERSITY OF WYOMING 9535**  
 INFRARED SPECKLE INTERFEROMETRY OF IO  
 03/25/1997 - 11/30/2000 FY00: \$0 Total: \$134,084  
 Prin. Invest.: D R HOWELL  
 Tech. Officer: GSFC/T MORGAN  
 CASE Category: 11 - ASTRONOMY

**NAG 5 4233 UNIVERSITY OF WYOMING 9536**  
 THEORETICAL STUDIES OF BINARY SYSTEMS CONTAINING C  
 03/31/1997 - 03/31/2000 FY00: \$0 Total: \$20,347  
 Prin. Invest.: S B HOWELL  
 Tech. Officer: GSFC/D K WEST  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6492 UNIVERSITY OF WYOMING 9537**  
 UNDERGRADUATE SEARCH FOR EXTRA-SOLAR PLANETS  
 10/31/1997 - 09/30/1999 FY00: \$0 Total: \$19,925  
 Prin. Invest.: D HOWELL  
 Tech. Officer: GSFC/H SMITH  
 CASE Category: 11 - ASTRONOMY

**NAG 5 6628 UNIVERSITY OF WYOMING 9538**  
 INVESTIGATIONS OF SULFATE AEROSOLS AND POLAR STRATOSPHERIC  
 CLOUDS USING COMBINED OBSERVATIONS FROM  
 11/18/1997 - 11/30/2000 FY00: \$55,508 Total: \$169,003  
 Prin. Invest.: D E HERVIG  
 Tech. Officer: GSFC/A DOUGLASS  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NAG 5 6735 UNIVERSITY OF WYOMING 9539**  
 FUV OBSERVATIONS OF PQ GEM  
 12/17/1997 - 12/31/1999 FY00: \$0 Total: \$20,372  
 Prin. Invest.: S R HOWELL  
 Tech. Officer: GSFC/R POLIDAN  
 CASE Category: 11 - ASTRONOMY

## NASA'S UNIVERSITY PROGRAM

## COMMONWEALTH OF PUERTO RICO

**NAG 5 6738 UNIVERSITY OF WYOMING 9540**  
 THE THREE DIMENSIONAL STRUCTURE OF ACCRETIONS REG IONS: ANALYSIS OF EUVE AND ROSAT ARCHIVAL DATA  
 12/17/1997 - 09/30/1999 FY00: \$0 Total: \$50,000  
*Prin. Invest.:* S HOWELL  
*Tech. Officer:* GSFC/D WEST  
*CASE Category:* 51 - BIOLOGY (EXCLUDING ENVIR)

**NAG 5 8904 UNIVERSITY OF WYOMING 9541**  
 THERMAL EMISSION FROM LAVA FLOWS  
 12/28/1999 - 12/31/2000 FY00: \$14,400 Total: \$14,400  
*Prin. Invest.:* R HOWELL  
*Tech. Officer:* GSFC/J GRANT  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 8917 UNIVERSITY OF WYOMING 9542**  
 MULTI-WAVELENGTH MODELING OF HOT SPOTS ON LO  
 01/18/2000 - 12/31/2000 FY00: \$20,100 Total: \$20,100  
*Prin. Invest.:* R N HOWELL  
*Tech. Officer:* GSFC/D BOGAN  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NAG 9 1176 UNIVERSITY OF WYOMING 9543**  
 DEVELOP SECURE INTERNET BASED DATA TRANSFER SYSTEM FOR COUNTERMEASURES EVALUATION & VALIDATION PROJ  
 11/15/1999 - 11/14/2000 FY00: \$70,931 Total: \$70,931  
*Prin. Invest.:* R E GANTENBEIN  
*Tech. Officer:* GSFC/C LUNDQUIST  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAS 1 18945 UNIVERSITY OF WYOMING 9544**  
 SAGE III SCIENCE INVESTIGATION SUPPORT P.I. - DR. GABOR VALI  
 01/17/1990 - 01/31/2005 FY00: \$40,000 Total: \$418,300  
*Prin. Invest.:* G VALI  
*Tech. Officer:* LARC/G L MADDREA, LARC/L R MCMASTER  
*CASE Category:* 31 - ATMOSPHERIC SCIENCE

**NCC 2 5315 UNIVERSITY OF WYOMING 9545**  
 AUTOMATIC FRINGE DETECTION FOR OIL FILM INTERFEROMETRY SKIN-FRICTION MEASUREMENT  
 04/12/1999 - 06/30/2001 FY00: \$20,015 Total: \$40,108  
*Prin. Invest.:* J W NAUGHTON  
*Tech. Officer:* ARC/D M DRIVER, ARC/G ZILLIAC  
*CASE Category:* 41 - AERONAUTICAL ENGR

**NCC 5 414 UNIVERSITY OF WYOMING 9546**  
 EPSCOR PREPARATION PROGRAM  
 06/18/1999 - 06/31/2001 FY00: \$219,048 Total: \$428,236  
*Prin. Invest.:* P JOHNSON  
*Tech. Officer:* GSFC/DDETROYE  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30350 UNIVERSITY OF WYOMING 9547**  
 EFFECTS OF WIND ON SNOWPACK DISTRIBUTION & SUBSEQUENT MELT-WATER ROUTING ON ECOSYSTEM PROPERTIES/STU  
 08/24/2000 - 08/31/2001 FY00: \$21,996 Total: \$21,996  
*Prin. Invest.:* W REINER  
*Tech. Officer:* GSFC/M WEI  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40008 UNIVERSITY OF WYOMING 9548**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE AND FELLOWSHIP PROGRAM  
 02/03/1997 - 02/28/2001 FY00: \$212,500 Total: \$807,500  
*Prin. Invest.:* P E JOHNSON  
*Tech. Officer:* GSFC/L KEFFER  
*CASE Category:* 99 - MULTI INTERDISCIPL, OTHER

**NGT 9 36 UNIVERSITY OF WYOMING 9549**  
 TRAINING GRANT  
 06/04/1998 - 11/30/2000 FY00: \$22,000 Total: \$44,000  
*Prin. Invest.:* R 3 GANTENBEIN  
*Tech. Officer:* JSC/D G SICKOREZ  
*CASE Category:* 22 - COMPUTER SCIENCE

## COMMONWEALTH OF PUERTO RICO

**NAG 2 1149 PONCE SCHOOL OF MEDICINE 9550**  
 SOLAR ULTRA VIOLET-B RADIATION & PUBLIC HEALTH IN PUERTO RICO  
 08/07/1997 - 12/14/1999 FY00: -\$377 Total: \$290,152  
*Prin. Invest.:* J L MATTA  
*Tech. Officer:* ARC/H L D'ANTONI  
*CASE Category:* 59 - LIFE SCIENCE, OTHER

**NAG 5 5302 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9551**  
 CORAL REEF MONITORING BY REMOTE SENSING OF CORAL SPAWN  
 09/05/2000 - 08/31/2001 FY00: \$17,000 Total: \$17,000  
*Prin. Invest.:* E WEIL, J LOPEZ, R ARMSTRONG  
*Tech. Officer:* WFF/C W WRIGHT  
*CASE Category:* 33 - OCEANOGRAPHY

**NAG 5 6031 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9552**  
 DYNAMIC TOPOGRAPHY, GRAVITY, & SURFACE DEFORMATION : APPLICATION TO HAZARD ASSESSMENT OF ERUPTING IS  
 10/02/1999 - 09/30/1999 FY00: \$64,974 Total: \$194,327  
*Prin. Invest.:* G MATTIOLI  
*Tech. Officer:* GSFC/H FREY  
*CASE Category:* 32 - GEOLOGICAL SCIENCE

**NAG 5 7198 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9553**  
 CATS-CARIBBEAN TIME SERIES: A SERIAL OBSERVING STATION IN THENORTHEASTERN CARIBBEAN SEA  
 05/04/1998 - 06/30/2001 FY00: \$31,500 Total: \$126,000  
*Prin. Invest.:* J CORREDOR, NONE  
*Tech. Officer:* GSFC/J W CAMPBELL  
*CASE Category:* 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1344 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9554**  
 RESEARCH "ELECTROOPTICAL EFFECTS ON THIN ORGANIC FILMS OF 3-NITROANILINE & 2-CYCLO-OCTYLALMINO...."  
 04/24/1997 - 04/23/2000 FY00: \$50,716 Total: \$295,481  
*Prin. Invest.:* A LYDERMAN, NONE  
*Tech. Officer:* MSFC/B PENN  
*CASE Category:* 13 - PHYSICS

**NAG 8 1388 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9555**  
 RES: THERMAL PROPERTIES OF MELT-GLASS TRANSITIONS OF ORGANIC  
 COMPOUNDS FOR NONLINEAR OPTICAL APPLICA  
 07/09/1997 - 12/31/2000 FY00: \$216,027 Total: \$433,378  
 Prin. Invest.: A BARRIENTOS  
 Tech. Officer: MSFC/M VLASSE  
 CASE Category: 13 - PHYSICS

**NAG10 243 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9556**  
 MASTAP - TEACHER ENHANCEMENT PROJECT  
 04/15/1998 - 04/18/2001 FY00: \$188,379 Total: \$574,328  
 Prin. Invest.: B RAMIREZ  
 Tech. Officer: KSC/J DIGGS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG10 257 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9557**  
 SODIUM CHLORIDE AND NITRATE SEPARATION/RECOVERY FROM CELSS  
 WASTES  
 04/20/1999 - 04/19/2001 FY00: \$82,300 Total: \$181,609  
 Prin. Invest.: G COLON  
 Tech. Officer: KSC/J SAYER  
 CASE Category: 59 - LIFE SCIENCE, OTHER

**NAG13 54 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9558**  
 ANALYSIS OF THE INHERENT AND APPARENT OPTICAL PROPERTIES  
 07/16/1997 - 12/31/2000 FY00: \$0 Total: \$299,899  
 Prin. Invest.: R A ARMSTRONG  
 Tech. Officer: SSC/R L MILLER  
 CASE Category: 33 - OCEANOGRAPHY

**NAG13 99029 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9559**  
 DEVELOPMENT AND VALIDATION OF BIO-OPTICAL ALGORITHMS IN  
 COASTAL WATER  
 09/15/1999 - 09/25/2001 FY00: \$47,000 Total: \$146,990  
 Prin. Invest.: F GILBES  
 Tech. Officer: SSC/R TRAVIS  
 CASE Category: 51 - BIOLOGY (EXCLUDING ENVIR)

**NCC 5 215 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9560**  
 TROPICAL ATMOSPHERIC SCIENCES CENTER/ THE NASA/PUERTO RICO  
 EPSCOR PROGRAM.  
 07/07/1997 - 06/30/2001 FY00: \$400,000 Total: \$1,800,000  
 Prin. Invest.: B G WEINER  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 31 - ATMOSPHERIC SCIENCE

**NCC 5 252 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9561**  
 TROPICAL CENTER FOR EARTH AND SPACE STUDIES  
 10/29/1997 - 09/30/2000 FY00: \$640,971 Total: \$3,612,115  
 Prin. Invest.: R FERNANDEZ-SEIN  
 Tech. Officer: GSFC/D WILLIAMS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NCC 5 340 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9562**  
 PARTNERSHIP FOR SPATIAL AND COMPUTATIONAL RESEARCH  
 08/22/1998 - 05/31/2001 FY00: \$457,185 Total: \$1,375,631  
 Prin. Invest.: R VASQUEZ  
 Tech. Officer: HQ/B WHITE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 30364 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9563**  
 THEORETICAL QUANTUM STUDY OF THE DISSOCIATION & ADSORPTION  
 DYNAMICS OF HCl ON STRATOSPHERIC AEROSOL  
 08/24/2000 - 08/31/2001 FY00: \$22,000 Total: \$22,000  
 Prin. Invest.: A J CRUZ  
 Tech. Officer: GSFC/M WEI  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NGT 5 40012 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9564**  
 TO SUPPORT PROGRAMS AND FELLOWSHIPS UNDER THE NATI COLLEGE  
 AND FELLOWSHIP PROGRAM.  
 01/30/1997 - 08/31/2001 FY00: \$406,250 Total: \$1,150,000  
 Prin. Invest.: D G WEINER  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT13 52746 UNIVERSITY OF PUERTO RICO - MAYAGUEZ 9565**  
 VERTICAL VARIABILITY IN BIO-OPTICAL PROPERTIES OF COASTAL WATERS  
 -ROLE IN DEV OF NEW REMOTE SENSING  
 09/25/2000 - 09/24/2001 FY00: \$11,000 Total: \$11,000  
 Prin. Invest.: M ROSADO  
 Tech. Officer: SSC/R TRAVIS  
 CASE Category: 22 - COMPUTER SCIENCE

**NAG 5 3473 UNIV OF PUERTO RICO HUMACAO UNIV COLL 9566**  
 MATHEMATICS, SCIENCE AND TECHNOLOGY AWARDS FOR TEACHER ENHANCE-  
 MENT (MASTAP)  
 11/22/1996 - 12/31/1998 FY00: \$0 Total: \$355,482  
 Prin. Invest.: A M GIERBOLINI  
 Tech. Officer: GSFC/M MATEU  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 6428 UNIVERSITY OF PUERTO RICO-RIO PIEDRAS 9567**  
 LAND MANAGEMENT IN THE TROPICS AND ITS EFFECTS ON THE GLOBAL  
 ENVIRONMENT  
 10/09/1997 - 08/14/2000 FY00: \$0 Total: \$1,795,219  
 Prin. Invest.: B WEINER  
 Tech. Officer: GSFC/J MALONE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 5 9050 UNIVERSITY OF PUERTO RICO-RIO PIEDRAS 9568**  
 INTERACTIONS AND DIVERSITY: EARTH SYSTEM SCIENCE & BEYOND  
 03/01/2000 - 02/14/2001 FY00: \$50,000 Total: \$50,000  
 Prin. Invest.: I L APONTE-AVELLANE  
 Tech. Officer: GSFC/N KHAZENIE  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

**NAG 8 1709 UNIVERSITY OF PUERTO RICO-RIO PIEDRAS 9569**  
 LAND MANAGEMENT IN THE TROPIC AND ITS EFFECTS ON THE GLOBAL  
 ENVIRONMENT  
 03/20/2000 - 03/19/2003 FY00: \$500,000 Total: \$500,000  
 Prin. Invest.: B R WEINER  
 Tech. Officer: MSFC/W J LOVE  
 CASE Category: 54 - ENVIRONMENTAL BIOLOGY

**NCC 5 487 UNIVERSITY OF PUERTO RICO-RIO PIEDRAS 9570**  
 NASA EPSCOR: PREPARATORY GRANT PROPOSAL  
 05/17/1999 - 07/31/2001 FY00: \$225,000 Total: \$450,000  
 Prin. Invest.: B R WEINER  
 Tech. Officer: GSFC/D DETROYE  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER



**NAG 5 8323 UNIVERSITY OF TURABO 9571**  
 APPLIED ENGINEERING LABORATORY  
 04/15/1999 - 04/30/2000 FY00: \$0 Total: \$74,500  
 Prin. Invest.: M MODESTO  
 Tech. Officer: GSFC/M MATEU  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NGT 5 90064 UNIVERSITY OF TURABO 9572**  
 ENGINEERING PREPARATORY PROJECT FOR HISPANIC HIGH  
 03/04/1997 - 02/28/2001 FY00: \$192,998 Total: \$773,878  
 Prin. Invest.: B A MARRERO  
 Tech. Officer: GSFC/M MATEU  
 CASE Category: 49 - ENGINEERING, OTHER

## GUAM

**NAG 5 6798 UNIVERSITY OF GUAM - MANGILAO 4044**  
 ESTABLISHING A CTR OF EXCELLENCE FOR REMOTE SENSING AT THE  
 UNIVERSITY OF GUAM FORENHANCING RESEA  
 02/25/1998 - 09/30/1999 FY00: \$0 Total: \$80,000  
 Prin. Invest.: M LANDER  
 Tech. Officer: GSFC/M WEIM  
 CASE Category: 39 - ENVIRONMENTAL SCI, OTHER

## AUSTRALIA

**NAG 1 2113 UNIVERSITY OF QUEENSLAND 9574**  
 SCRAMJET GROUND TEST TO FLIGHT TEST CORRELATION  
 10/28/1998 - 09/30/1999 FY00: \$37,500 Total: \$50,000  
 Prin. Invest.: A PAULL  
 Tech. Officer: LARC/A H AUSLENDER, LARC/R T VOLAND  
 CASE Category: 41 - AERONAUTICAL ENGR

## CANADA

**NAG 5 9875 BROCK UNIVERSITY 9575**  
 U.S.-CANADA:FLUORESCENCE-BASED DIAGNOSTIC OF IRON LIMITATION  
 FOR ANALYSIS OF NATURAL PHYTOPLANKTON  
 08/22/2000 - 08/31/2001 FY00: \$21,000 Total: \$21,000  
 Prin. Invest.: D BRUCE  
 Tech. Officer: GSFC/M BEHRENFELD  
 CASE Category: 32 - GEOLOGICAL SCIENCE

## CHILE

**NAS 5 1925 UNIVERSITY OF CHILE 9576**  
 M&O OF MINITRACK FACILITIES IN CHILE  
 08/21/1982 - 12/31/1999 FY00: \$402,206 Total: \$97,890,073  
 Prin. Invest.: E DIAZ  
 Tech. Officer: GSFC/W J BODIN, GSFC/D SPINTMAN  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

## GREAT BRITAIN

**NAG 2 1283 IMPERIAL COLL OF SCIENCE & TECHNOLOGY 9577**  
 EVALUATION OF PARALLELISATION TOOLS FOR COMPUTATIONAL FLUID  
 DYNAMICS CODE  
 01/15/1999 - 09/30/1999 FY00: \$0 Total: \$48,818  
 Prin. Invest.: R P LINDSTEDT  
 Tech. Officer: ARC/M E DUENAS  
 CASE Category: 99 - MULTI INTERDISCIPL, OTHER

**NAG 2 1339 UNIVERSITY OF GREENWICH 9578**  
 TOOLS FOR RAPID PARALLELIZATION OF LEGACY FORTRAN COMPUTA-  
 TIONAL MECHANICS CODES  
 07/27/1999 - 06/30/2000 FY00: \$0 Total: \$150,000  
 Prin. Invest.: M CROSS  
 Tech. Officer: ARC/S SAINI  
 CASE Category: 22 - COMPUTER SCIENCE

**NAGW 2127 UNIVERSITY OF WALES 9579**  
 SOLUTION ALGORITHMS FOR HIGH SPEED COMPRESSIBLE FLOWS  
 06/15/1990 - 01/30/2001 FY00: \$19,000 Total: \$658,400  
 Prin. Invest.: O C ZIENKIEWICZ  
 Tech. Officer: ARC/K K GUPTA, ARC/K L PETERSEN  
 CASE Category: 41 - AERONAUTICAL ENGR

## ISRAEL

**NAG 3 2063 TEL-AVIV UNIVERSITY 9580**  
 SPECTRAL CONTENT OF SOLAR RADIATION ON MARTIAN SURFACE  
 07/23/1997 - 05/13/1999 FY00: \$0 Total: \$32,343  
 Prin. Invest.: J APPLEBAUM  
 Tech. Officer: GRC/C R BARAONA, GRC/D BRINKER  
 CASE Category: 13 - PHYSICS

**NAG 1 1823 WEIZMANN INSTITUTE OF SCIENCE 9581**  
 ADVANCED MULTIGRID SOLVERS FOR FLUID DYNAMICS  
 04/02/1996 - 10/31/1999 FY00: \$0 Total: \$102,001  
 Prin. Invest.: A BRANDT, J RUGE  
 Tech. Officer: LARC/J C SOUTH, JR., LARC/J L THOMAS  
 CASE Category: 21 - MATHEMATICS

## NETHERLANDS

**NAG 1 2129 DELFT UNIV OF TECHNOLOGY-NETHERLANDS 9582**  
 INVESTIGATION OF THE SENSITIVITY OF THE BUCKLING LOAD TO VARI-  
 ATIONS IN DESIGN PARAMETERS AND GEOMET  
 01/14/1999 - 12/31/2000 FY00: \$25,001 Total: \$50,001  
 Prin. Invest.: J ARBOCZ  
 Tech. Officer: LARC/J H STARNES, JR., LARC/M P NEMETH  
 CASE Category: 41 - AERONAUTICAL ENGR

## NEW ZEALAND

**NAG 2 1395 UNIVERSITY OF OTAGO 9583**  
 THE ROLE OF AIRCRAFT ACCIDENT AND INCIDENT CASE HISTORIES IN  
 AVIATION SAFETY AND TRAINING  
 02/03/2000 - 01/31/2001 FY00: \$88,192 Total: \$88,192  
 Prin. Invest.: D O'HARE  
 Tech. Officer: ARC/I BARSHI  
 CASE Category: 41 - AERONAUTICAL ENGR

## PERU

NAS 5 99121 UNIV NACIONAL DE SAN AGUSTIN - AREQUIPA 9584  
OPERATE & MAINTAIN LASER TRACKING STATION AT AREQUIPA PERU  
03/18/1999 - 01/23/2000 FY00: \$151,473 Total: \$276,790  
Prin. Invest.: N APPLICABLE  
Tech. Officer: GSFC/D L CARTER  
CASE Category: 32 - GEOLOGICAL SCIENCE

## RUSSIA

NCC 1 353 ALL RUSSIAN SCIENCE RESEARCH INST VIAM 9573  
EVALUATION OF LIGHTWEIGHT ALLOYS & ADVANCED MATERIALS PROC-  
ESSING FOR AIRFRAMES & SPACE VEHICLE  
01/13/2000 - 11/30/2001 FY00: \$155,000 Total: \$155,000  
Prin. Invest.: J FRIDLYANDER  
Tech. Officer: LARC/R K BIRD  
CASE Category: 47 - METAL & MATERIALS ENGR

## SCOTLAND

NAG 2 1241 UNIVERSITY OF GLASGOW 9585  
PARALLEL FINITE ELEMENT SIMULATION OF 'ATOMISTIC' EFFECTS IN  
SUB-0.1 MICRON DEVICES  
07/21/1998 - 07/31/2000 FY00: \$0 Total: \$255,000  
Prin. Invest.: A ASENOV  
Tech. Officer: ARC/T R GOVINDAN  
CASE Category: 45 - ELECTRICAL ENGR

# NASA'S UNIVERSITY PROGRAM

## APPENDIX

### CROSS INDEX BY FIELD OF SCIENCE AND ENGINEERING

The fields used here are specified by Amendment J, "Standard Classification of Fields of Science and Engineering," to Office of Management and Budget (OMB) Circular A-46, "Standards for Statistical Surveys." Field codes are interpreted as follows:

<b>PHYSICAL SCIENCES</b>		<b>ENVIRONMENTAL SCIENCES</b> (Terrestrial and extraterrestrial)		<b>LIFE SCIENCES</b>		<b>SOCIAL SCIENCES</b>	
11	ASTRONOMY	31	ATMOSPHERIC SCIENCES	51	BIOLOGICAL SCIENCES	71	ANTHROPOLOGY
12	CHEMISTRY	32	GEOLOGICAL SCIENCES	54	ENVIRONMENTAL BIOLOGY	72	ECONOMICS
13	PHYSICS	33	OCEANOGRAPHY	55	AGRICULTURAL SCIENCES	73	HISTORY
19	PHYSICAL SCIENCES, NEC*	39	ENVIRONMENTAL SCIENCES, NEC*	56	MEDICAL SCIENCES	74	LINGUISTICS
				59	LIFE SCIENCES, NEC*	75	POLITICAL SCIENCE
						76	SOCIOLOGY
						79	SOCIAL SCIENCE, NEC*
<b>MATHEMATICAL/COMPUTER SCIENCE</b>		<b>ENGINEERING</b>		<b>PSYCHOLOGY</b>		<b>OTHER SCIENCES**</b>	
21	MATHEMATICS	41	AERONAUTICAL	61	BIOLOGICAL	99	ALL DISCIPLINE(S)
22	COMPUTER SCIENCES	42	ASTRONAUTICAL	62	SOCIAL SCIENCES		
29	MATHEMATICAL COMPUTER SCIENCES, NEC*	43	CHEMICAL	69	PSYCHOLOGY, NEC*		
		44	CIVIL				
		45	ELECTRICAL				
		46	MECHANICAL				
		47	METALLURGY AND MATERIALS				
		49	ENGINEERING, NEC*				

\* Not elsewhere classified (For interdisciplinary projects and others not listed by discipline name)

\*\* For interdisciplinary projects which cannot be classified within any of the preceding main fields

Abbreviations used in the *Technical Officer Location* column are discussed in the prefatory pages.

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	ARIZONA STATE UNIV	D BOGAN	GSFC	R GREELY	NAG 5 8897	24
11	ARIZONA STATE UNIV	D BOGAN	GSFC	S A FAGENTS	NAG 5 8898	24
11	ARIZONA STATE UNIV	D K WEST	GSFC	M POLITANO	NAG 5 3892	22
11	ARIZONA STATE UNIV	D K WEST	GSFC	M POLITANO	NAG 5 8481	23
11	ARIZONA STATE UNIV	D K WEST	GSFC	S G STARRFIELD	NAG 5 8278	23
11	ARIZONA STATE UNIV	D K WEST	GSFC	S STARRFIELD	NAG 5 6741	23
11	ARIZONA STATE UNIV	D NAVA	GSFC	P R BUSECK	NAG 5 4308	22
11	ARIZONA STATE UNIV	D NAVA	GSFC	T G SHARP	NAG 5 9381	24
11	ARIZONA STATE UNIV	D WEST	GSFC	R WINDHORST	NAG 5 6740	23
11	ARIZONA STATE UNIV	G SONNEBORN	GSFC	A P COWLEY	NAG 5 8805	24
11	ARIZONA STATE UNIV	G SONNEBORN	GSFC	S G STARRFIELD	NAG 5 9395	24
11	ARIZONA STATE UNIV	J BOYCE	GSFC	D R HUSS	NAG 5 8173	23
11	ARIZONA STATE UNIV	J BOYCE	GSFC	D WYCKOFF	NAG 5 4280	22
11	ARIZONA STATE UNIV	J BOYCE	GSFC	L A LESHIN	NAG 5 8286	23
11	ARIZONA STATE UNIV	J BOYCE	GSFC	P R BUSECK	NAG 5 9352	24
11	ARIZONA STATE UNIV	J BOYCE	GSFC	R GREELEY	NAG 5 8721	23
11	ARIZONA STATE UNIV	J BOYCE	GSFC	R GREELY	NAG 5 9773	24
11	ARIZONA STATE UNIV	J BOYCE	HQ	D A LESHIN	NAG 5 7640	23
11	ARIZONA STATE UNIV	J BOYCE	HQ	D R HUSS	NAG 5 8158	23
11	ARIZONA STATE UNIV	J BOYCE	HQ	L LESHIN	NAG 5 7540	23
11	ARIZONA STATE UNIV	J BOYCE	HQ	P A WEHINGER	NAG 5 7199	23
11	ARIZONA STATE UNIV	J BOYCE	HQ	R GREELEY	NAG 5 8453	23
11	ARIZONA STATE UNIV	J BOYCE	HQ	T G SHARP	NAG 5 7285	23
11	ARIZONA STATE UNIV	J GRANT	GSFC	R GREELEY	NAG 5 8948	24
11	ARIZONA STATE UNIV	J M BOYCE	GSFC	M S EDGETT	NAG 5 4296	22
11	ARIZONA STATE UNIV	R OLIVERSEN	GSFC	S STARRFIELD	NAG 5 9263	24
11	AUBURN UNIV	D BRUNNER	GSFC	H W BRANDHORST	NCC 5 459	3
11	AUBURN UNIV	D EVANS	GSFC	D LIN	NAG 5 8081	3
11	BARNARD COLLEGE	J P NORRIS	GSFC	R MUKHERJEE	NAG 5 6956	359
11	BARNARD COLLEGE	J P NORRIS	GSFC	R MUKHERJEE	NAG 5 7341	359
11	BLOOMSBURG UNIV	J GRANT	GSFC	M K SHEPARD	NAG 5 7964	424
11	BOSTON UNIV	D K WEST	GSFC	A P MARSCHER	NAG 5 3839	272
11	BOSTON UNIV	D WEST	GSFC	J R MATTOX	NAG 5 3384	272
11	BOSTON UNIV	H HASAN	GSFC	D CHAKRABARTI	NAG 5 3999	273

FIELD CODE	INSTITUTION	TECHNICAL OFFICER	TECH OFF LOC.	FIRST PRINCIPAL INVESTIGATOR	AGREEMENT NUMBER	PAGE NUM.
11	BOSTON UNIV	J BERGSTRAHL	GSFC	D MENDILLO	NAG 5 4991	273
11	BOSTON UNIV	J BREDEKAMP	GSFC	J D SULLIVAN	NAG 5 8147	275
11	BOSTON UNIV	J LING	GSFC	N CROOKER	NAG 5 6658	274
11	BOSTON UNIV	J P NORRIS	GSFC	A P MARSCHER	NAG 5 7323	274
11	BOSTON UNIV	J P NORRIS	GSFC	J R MATTOX	NAG 5 3806	272
11	BOSTON UNIV	J SWANK	GSFC	A MARSCHER	NAG 5 4245	273
11	BOSTON UNIV	J SWANK	GSFC	A MARSCHER	NAG 5 7331	274
11	BOSTON UNIV	J SWANK	GSFC	A MARSCHER	NAG 5 7338	274
11	BOSTON UNIV	J SWANK	GSFC	J MATTOX	NAG 5 6335	273
11	BOSTON UNIV	L CHRISTENSEN	GSFC	N U CROOKER	NAG 5 7049	274
11	BOSTON UNIV	L KALUZIENSKI	GSFC	T BRAINERD	NAG 5 8756	275
11	BOSTON UNIV	R BEEBE	GSFC	D A YOUNG	NAG 5 7861	274
11	BOSTON UNIV	R BEEBE	GSFC	M MENDILLO	NAG 5 6755	274
11	BOSTON UNIV	R HOFFMAN	GSFC	H SPENCE	NAG 5 97147	276
11	BOSTON UNIV	R OLIVERSEN	GSFC	A MARSCHER	NAG 5 9161	275
11	BOSTON UNIV	T MORGAN	GSFC	M MENDILLO	NAG 5 8012	275
11	BOWIE STATE UNIV	D A WEIDOW	GSFC	P C CHI	NCC 5 145	239
11	BOWIE STATE UNIV	J TILTON	GSFC	M MAREBOYANA	NAG 5 2829	238
11	BROWN UNIV	B CAMPBELL	GSFC	P H SCHULTZ	NAG 5 7082	445
11	BROWN UNIV	D BOGAN	GSFC	D T PAPPALARDO	NAG 5 8046	445
11	BROWN UNIV	D NAVA	GSFC	D C HESS	NAG 5 4650	445
11	BROWN UNIV	D NAVA	GSFC	M J RUTHERFRD	NAG 5 9522	446
11	BROWN UNIV	G STRINGFELLOW	GSFC	G TUCKER	NAG 5 9453	446
11	BROWN UNIV	J BOYCE	GSFC	C M PIETERS	NAG 5 10010	446
11	BROWN UNIV	J BOYCE	GSFC	D C HESS	NAG 5 8174	446
11	BROWN UNIV	J BOYCE	GSFC	D M PIETERS	NAG 5 8302	446
11	BROWN UNIV	J BOYCE	GSFC	J F MUSTARD	NAG 5 9589	446
11	BROWN UNIV	J BOYCE	GSFC	J W HEAD III	NAG 5 10031	446
11	BROWN UNIV	J BOYCE	HQ	J W HEAD	NAG 5 8283	446
11	BROWN UNIV	J BOYCE	HQ	M J RUTHERFORD	NAG 5 8181	446
11	BROWN UNIV	J M BOYCE	GSFC	D J RUTHERFORD	NAG 5 4438	445
11	BROWN UNIV	L SMITH	GSFC	P H SCHULTZ	NGT 5 50166	447
11	BROWN UNIV	R BEEBE	GSFC	D T PAPPALARDO	NAG 5 7866	445
11	BROWN UNIV	R BEEBE	GSFC	D W HEAD	NAG 5 8144	445
11	CALIFORNIA INST OF TECH	A NURRIDIN	HQ	S G DJORGOVSKI	NGT 5 50215	50
11	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	S BOGGS	NAG 5 5286	48
11	CALIFORNIA INST OF TECH	B CAMPBELL	GSFC	J BEAUCHAMP	NAG 5 7081	47
11	CALIFORNIA INST OF TECH	B WORRALL	GSFC	E STONE	NAG 5 6912	46
11	CALIFORNIA INST OF TECH	D K WEST	GSFC	B T SOIFER	NAG 5 3560	44
11	CALIFORNIA INST OF TECH	D K WEST	GSFC	E PHINNEY	NAG 5 7034	47
11	CALIFORNIA INST OF TECH	D K WEST	GSFC	J M CARPENTER	NAG 5 8217	47
11	CALIFORNIA INST OF TECH	D K WEST	GSFC	P M GOLDREICH	NAG 5 7008	47
11	CALIFORNIA INST OF TECH	D K WEST	GSFC	R BLANDFORD	NAG 5 7007	46
11	CALIFORNIA INST OF TECH	D K WEST	GSFC	S KULKARNI	NAG 5 6402	46
11	CALIFORNIA INST OF TECH	D NAVA	GSFC	D M STOLPER	NAG 5 4318	45
11	CALIFORNIA INST OF TECH	D NAVA	GSFC	D S BURNETT	NAG 5 4307	44
11	CALIFORNIA INST OF TECH	D NAVA	GSFC	D S BURNETT	NAG 5 4319	45
11	CALIFORNIA INST OF TECH	D VEANS	GSFC	M E BROWN	NAG 5 8463	47
11	CALIFORNIA INST OF TECH	D WEST	GSFC	T A PRINCE	NAG 5 32642	49
11	CALIFORNIA INST OF TECH	D WEST	GSFC	T A PRINCE	NAG 5 3239	43
11	CALIFORNIA INST OF TECH	F A HERRERO	GSFC	S BOGGS	NAG 5 8743	48
11	CALIFORNIA INST OF TECH	F SNOW	GSFC	C MARTIN	NAG 5 98034	50
11	CALIFORNIA INST OF TECH	G STRINGFELLOW	GSFC	A LANGE	NAG 5 9344	48
11	CALIFORNIA INST OF TECH	G STRINGFELLOW	GSFC	A LANGE	NAG 5 9856	49
11	CALIFORNIA INST OF TECH	G STRINGFELLOW	GSFC	P A BLAKE	NAG 5 4892	45
11	CALIFORNIA INST OF TECH	H HASAN	GSFC	K THORNE	NAG 5 6840	46
11	CALIFORNIA INST OF TECH	H HASAN	GSFC	P A BLAKE	NAG 5 4097	44
11	CALIFORNIA INST OF TECH	H NEEDLEMAN	GSFC	J GRINDLEY	NAG 5 5128	45
11	CALIFORNIA INST OF TECH	H THRONSON	GSFC	D E LANGE	NAG 5 6573	46
11	CALIFORNIA INST OF TECH	H THRONSON	GSFC	D S ZMUIDZINAS	NAG 5 4890	45
11	CALIFORNIA INST OF TECH	H THRONSON	GSFC	D SERABYN	NAG 5 4196	44
11	CALIFORNIA INST OF TECH	H THRONSON	GSFC	P E LANGE	NAG 5 4079	44
11	CALIFORNIA INST OF TECH	H THRONSON	GSFC	P E LANGE	NAG 5 4081	44
11	CALIFORNIA INST OF TECH	J A GRANT	GSFC	T AHRENS	NAG 5 8915	48
11	CALIFORNIA INST OF TECH	J A GRANT	GSFC	T J AHRENS	NAG 5 8907	48
11	CALIFORNIA INST OF TECH	J BERGSTRAHL	GSFC	D O MUHLEMAN	NAG 5 3792	44

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11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	A P INGERSOL	NAG 5 9601	49
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	B C MURRAY	NAG 5 9606	49
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	D A PAPANASTASSIOU	NAG 5 8251	47
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	D I SARGENT	NAG 5 4599	45
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	G A BLAKE	NAG 5 9434	48
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	J L KIRSCHVINK	NAG 5 6225	46
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	P A BLAKE	NAG 5 4383	45
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	S KULKARNI	NAG 5 6981	46
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	S R KULKARNI	NAG 5 8318	47
11	CALIFORNIA INST OF TECH	J BOYCE	GSFC	S SARGENT	NAG 5 9530	49
11	CALIFORNIA INST OF TECH	J BOYCE	HQ	D HILLENBRAND	NAG 5 7501	47
11	CALIFORNIA INST OF TECH	J BOYCE	HQ	P LINDBLOM	NAG 5 4093	44
11	CALIFORNIA INST OF TECH	J H RAHE	HQ	E STONE	NCCW 62	50
11	CALIFORNIA INST OF TECH	J M BOYCE	GSFC	D C MURRAY	NAG 5 4347	45
11	CALIFORNIA INST OF TECH	J P NORRIS	GSFC	R C LAMB	NAG 5 3299	43
11	CALIFORNIA INST OF TECH	J P NORRIS	GSFC	R C LAMB	NAG 5 8124	47
11	CALIFORNIA INST OF TECH	J SWANK	GSFC	S R KULKARNI	NAG 5 8110	47
11	CALIFORNIA INST OF TECH	J SWANK	GSFC	T A PRINCE	NAG 5 7229	47
11	CALIFORNIA INST OF TECH	N WHITE	GSFC	S R KULKARNI	NAG 5 6955	46
11	CALIFORNIA INST OF TECH	R BEEBE	GSFC	D P INGERSOLL	NAG 5 8049	47
11	CALIFORNIA INST OF TECH	R F MUSHOTZKY	GSFC	F WALTER	NAG 5 9919	49
11	CALIFORNIA INST OF TECH	R F MUSHOTZKY	GSFC	L M LUBIN	NAG 5 9920	49
11	CALIFORNIA INST OF TECH	R H PLESS	GSFC	C MARTIN	NAG 5 5052	45
11	CALIFORNIA INST OF TECH	R J OLIVERSEN	GSFC	M P KAMIONKOWSKI	NAG 5 9821	49
11	CALIFORNIA INST OF TECH	S SOBIESKI	GSFC	J A WESTPHAL	NAG 5 1611	43
11	CALIFORNIA INST OF TECH	T MORGAN	GSFC	E SERABYN	NAG 5 6816	46
11	CALIFORNIA INST OF TECH	W J WAGNER	GSFC	D G LIBBRECHT	NAG 5 6173	46
11	CALIFORNIA INST OF TECH	W WAGNER	GSFC	I SACKMANN	NAG 5 7166	47
11	CALIFORNIA STATE UNIV - FULLERTON	J BOYCE	GSFC	D WOODLUM	NAG 5 9433	52
11	CALIFORNIA STATE UNIV - FULLERTON	J BOYCE	GSFC	D WOOLUM	NAG 5 4945	52
11	CALIFORNIA STATE UNIV - LOS ANGELES	D BOGAN	GSFC	K KHURANA	NAG 5 8945	53
11	CALIFORNIA STATE UNIV - NORTHRIDGE	D EVANS	GSFC	D A CHAPMAN	NAG 5 7778	54
11	CALIFORNIA STATE UNIV - NORTHRIDGE	J E ALLEN	GSFC	M J PENN	NCC 5 381	54
11	CALIFORNIA STATE UNIV - NORTHRIDGE	W J WAGNER	GSFC	G A CHAPMAN	NAG 5 4973	54
11	CALIFORNIA STATE UNIV - NORTHRIDGE	W WAGNER	GSFC	G A CHAPMAN	NAG 5 7191	54
11	CARNEGIE - MELLON UNIV	D K WEST	GSFC	A K ROMER	NAG 5 7926	425
11	CARNEGIE - MELLON UNIV	D K WEST	GSFC	R E GRIFFITHS	NAG 5 7898	425
11	CARNEGIE - MELLON UNIV	D MACHI	GSFC	D GRIFFITHS	NAG 5 3651	425
11	CARNEGIE - MELLON UNIV	D WEST	GSFC	R NICHOL	NAG 5 6548	425
11	CARNEGIE - MELLON UNIV	L SMITH	GSFC	W WHITTAKER	NGT 5 50248	427
11	CARNEGIE - MELLON UNIV	N WHITE	GSFC	R E GRIFFITHS	NAG 5 9902	425
11	CARNEGIE - MELLON UNIV	P M ATKINS	GSFC	A F PTAK	NAG 5 9922	425
11	CARNEGIE - MELLON UNIV	R F MUSHOTZKY	GSFC	A ROMER	NAG 5 9899	425
11	CARNEGIE - MELLON UNIV	R KADUNC	GSFC	T KANADE	NCC 5 223	426
11	CARNEGIE - MELLON UNIV	R MUSHOTZKY	GSFC	R C NICHOL	NAG 5 10014	425
11	CASE WESTERN RESERVE UNIV	D K WEST	GSFC	C MIHOS	NAG 5 7019	398
11	CASE WESTERN RESERVE UNIV	J BOYCE	HQ	R HARVEY	NAG 5 6715	398
11	CHARLES COUNTY COMM COLLEGE	J NUTH	GSFC	G KRAUSE	NCC 5 69	240
11	CHRISTOPHER NEWPORT UNIV	D STARR	GSFC	N POUGATCHEV	NAG 5 6503	493
11	CITY UNIV OF NY CITY COLLEGE	B CARSLON	GSFC	N PARKER	NCC 5 378	361
11	CLAREMONT MCKENNA COLLEGE	D C LING	GSFC	D C HIGDON	NAG 5 8017	55
11	CLARK ATLANTA UNIV	R BEEBE	GSFC	S TAYAL	NAG 5 6889	182
11	CLEMSON UNIV - CLEMSON	D F NAVA	GSFC	D S MEYER	NAG 5 4703	448
11	CLEMSON UNIV - CLEMSON	J BOYCE	GSFC	P D CLAYTON	NAG 5 4340	448
11	CLEMSON UNIV - CLEMSON	J BOYCE	HQ	D D CLAYTON	NAG 5 8448	449
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	L THE	NAG 5 7831	449
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	L THE	NAG 5 9702	450
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	M D LEISING	NAG 5 3699	448
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	M D LEISING	NAG 5 7570	449
11	CLEMSON UNIV - CLEMSON	J P NORRIS	GSFC	M D LEISING	NAG 5 8075	449
11	CLEMSON UNIV - CLEMSON	N GEHRELS	GSFC	D HARTMANN	NAG 5 9802	450
11	COLLEGE OF CHARLESTON	J BOYCE	GSFC	C R COOMBS	NAG 5 7183	450
11	COLLEGE OF CHARLESTON	J ROSENDAHL	GSFC	M COLGAN	NCC 5 263	450
11	COLORADO SCH OF MINES	J BOYCE	GSFC	M B DUKE	NAG 5 9684	122
11	COLUMBIA UNIV	B A MERRITT	GSFC	E APRILE	NAG 5 5280	363
11	COLUMBIA UNIV	C ROSENZWEIG	GSFC	M CANE	NAG 5 4058	362

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11	COLUMBIA UNIV	D F MUSHOTZKY	GSFC	F B PAERLES	NAG 5 9929	366
11	COLUMBIA UNIV	D F MUTSHOTZKY	GSFC	D J HELFAND	NAG 5 9928	366
11	COLUMBIA UNIV	D K WEST	GSFC	A P CROTTS	NAG 5 3502	362
11	COLUMBIA UNIV	D K WEST	GSFC	D HELFAND	NAG 5 6035	363
11	COLUMBIA UNIV	D K WEST	GSFC	E V GOTTHELF	NAG 5 7935	365
11	COLUMBIA UNIV	D K WEST	GSFC	J O PATTERSON	NAG 5 7977	365
11	COLUMBIA UNIV	D K WEST	GSFC	J P HALPERN	NAG 5 7814	364
11	COLUMBIA UNIV	D K WEST	GSFC	K M LEIGHLY	NAG 5 7971	365
11	COLUMBIA UNIV	D K WEST	GSFC	K M LEIGHLY	NAG 5 9137	366
11	COLUMBIA UNIV	D NAVA	GSFC	D LONGHI	NAG 5 4649	362
11	COLUMBIA UNIV	D WEST	GSFC	J P HALPERN	NAG 5 3229	362
11	COLUMBIA UNIV	G SONNEBORN	GSFC	K M LEIGHLY	NAG 5 8957	365
11	COLUMBIA UNIV	J P NORRIS	GSFC	U OBERLACK	NAG 5 7846	364
11	COLUMBIA UNIV	J P NORRIS	GSFC	U OBERLACK	NAG 5 9653	366
11	COLUMBIA UNIV	J SWANK	GSFC	E GOTTHELF	NAG 5 7740	364
11	COLUMBIA UNIV	N E WHITE	GSFC	S M KAHN	NAG 5 7737	364
11	COLUMBIA UNIV	N WHITE	GSFC	D J HELFAND	NAG 5 2556	362
11	COLUMBIA UNIV	N WHITE	GSFC	K M LEIGHLY	NAG 5 7261	364
11	COLUMBIA UNIV	P ATKINS	GSFC	D HELFAND	NAG 5 9870	366
11	COLUMBIA UNIV	R F MUSHOTZKY	GSFC	D J HELFAND	NAG 5 9946	366
11	COLUMBIA UNIV	R F MUSHOTZKY	GSFC	F B PAERELS	NAG 5 9898	366
11	COLUMBIA UNIV	R J OLIVERSEN	GSFC	E V GOTTHELF	NAG 5 9136	366
11	COLUMBIA UNIV	R J OLIVERSEN	GSFC	J P HALPERN	NAG 5 9094	365
11	COLUMBIA UNIV	R J OLIVERSEN	GSFC	J P HALPERN	NAG 5 9095	365
11	COLUMBIA UNIV	R J OLIVERSEN	GSFC	M P KAMIONKOWSKI	NAG 5 8506	365
11	COLUMBIA UNIV	R M MUSHOTZKY	GSFC	E V GOTTHELF	NAG 5 9911	366
11	COLUMBIA UNIV	R MUSHOTZKY	GSFC	J P HALPERN	NAG 5 9950	366
11	CORNELL UNIV	A CARRO	GSFC	D VEVERKA	NAG 5 8067	372
11	CORNELL UNIV	C R MCCREIGHT	ARC	T L HERTER	NAG 2 1145	368
11	CORNELL UNIV	D B JARRETT	HQ	J F VEVERKA	NASW 00005	374
11	CORNELL UNIV	D K WEST	GSFC	D LAI	NAG 5 8484	372
11	CORNELL UNIV	D K WEST	GSFC	S TUEKOLSKY	NAG 5 7264	371
11	CORNELL UNIV	D K WEST	GSFC	T J LOREDO	NAG 5 3427	369
11	CORNELL UNIV	D K WEST	GSFC	Z ARZOUMANIAN	NAG 5 6893	371
11	CORNELL UNIV	D WEST	GSFC	G J STACEY	NAG 5 3347	369
11	CORNELL UNIV	D WEST	GSFC	I M WASSERMAN	NAG 5 3097	369
11	CORNELL UNIV	F M FLASAR	GSFC	B J CONRATH	NCC 5 375	374
11	CORNELL UNIV	F M FLASAR	GSFC	P J GIERASCH	NCC 5 322	374
11	CORNELL UNIV	G MUCKLOW	GSFC	G J STACEY	NAG 5 8673	372
11	CORNELL UNIV	H THRONSON	GSFC	D L HERTER	NAG 5 6495	371
11	CORNELL UNIV	H THRONSON	GSFC	D R HOUCK	NAG 5 4376	370
11	CORNELL UNIV	J BERGSTRAHL	GSFC	D J GIERABCH	NAG 5 3882	369
11	CORNELL UNIV	J BOYCE	GSFC	J F BELL	NAG 5 9774	373
11	CORNELL UNIV	J BOYCE	GSFC	R LOVELACE	NAG 5 9735	373
11	CORNELL UNIV	J BOYCE	HQ	D F CHERNOFF	NAG 5 8356	372
11	CORNELL UNIV	J BOYCE	HQ	D J BANDFIELD	NAG 5 8282	372
11	CORNELL UNIV	J BOYCE	HQ	P V LOVELACE	NAG 5 6311	371
11	CORNELL UNIV	J BOYCE	HQ	R O POHL	NAG 5 7508	371
11	CORNELL UNIV	J GRANT	GSFC	D E CLARK	NAG 5 7892	371
11	CORNELL UNIV	J P NORRIS	GSFC	J M CORDES	NAG 5 3515	369
11	CORNELL UNIV	J PNORRIS	GSFC	I M WASSERMAN	NAG 5 3800	369
11	CORNELL UNIV	J SWANK	GSFC	S S EIKENBERRY	NAG 5 7941	371
11	CORNELL UNIV	J T BERGSTRAHL	HQ	J R HOUCK	NASW 99008	374
11	CORNELL UNIV	J W POE	MSFC	J M PARPIA	NAG 8 1438	373
11	CORNELL UNIV	L D DEMING	GSFC	J HARRINGTON	NAG 5 7373	371
11	CORNELL UNIV	L D DEMING	GSFC	J HARRINGTON	NAG 5 9594	373
11	CORNELL UNIV	M BOYCE	GSFC	D W SQUYRES	NAG 5 4229	370
11	CORNELL UNIV	M FLASAR	GSFC	P J GIERASCH	NCC 5 132	374
11	CORNELL UNIV	M MELLOTT	GSFC	P M KINTNER	NAG 5 6987	371
11	CORNELL UNIV	P CRANE	GSFC	A SIEVERS	NAG 5 9140	373
11	CORNELL UNIV	R BEEBE	GSFC	D HARRINGTON	NAG 5 7965	372
11	CORNELL UNIV	R BEEBE	GSFC	D J GIERASCH	NAG 5 7864	371
11	CORNELL UNIV	R BEEBE	GSFC	P HELFENSTEIN	NAG 5 8010	372
11	CORNELL UNIV	R OLIVERSEN	GSFC	R LOVELACE	NAG 5 9047	372
11	CORNELL UNIV	T H MORGAN	GSFC	W BOTTKER	NAG 5 9082	373
11	CORNELL UNIV	T MORGAN	GSFC	D BANFIELD	NAG 5 7919	371

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11	CORNELL UNIV	T MORGAN	GSFC	D S HOWELL	NAG 5 8070	372
11	DARTMOUTH COLLEGE	A NURRIDIN	HQ	LABELLE	NGT 5 50093	338
11	DARTMOUTH COLLEGE	D EVANS	GSFC	B U SONNERUP	NAG 5 7185	337
11	DARTMOUTH COLLEGE	D EVANS	GSFC	M K HUDSON	NAG 5 7689	337
11	DARTMOUTH COLLEGE	L ZANETTI	GSFC	M K HUDSON	NGT 5 95	338
11	DARTMOUTH COLLEGE	R OLIVERSEN	GSFC	B CHABOYER	NAG 5 9225	337
11	DARTMOUTH COLLEGE	R PETRE	GSFC	J THORSTENSEN	NAG 5 3212	336
11	DEPAUL UNIV	J ROSENDAHL	GSFC	C C NARASIMHAN	NCC 5 272	201
11	DRAKE UNIV	D K WEST	GSFC	A MARSTON	NAG 5 6854	222
11	DREXEL UNIV	D K WEST	GSFC	S L MCMILLAN	NAG 5 6964	428
11	DREXEL UNIV	R OLIVERSEN	GSFC	S MCMILLAN	NAG 5 9264	428
11	ECKERD COLLEGE	M MOORE	GSFC	D SON	NAG 5 6712	163
11	FAIRFIELD UNIV	G MUCKLOW	GSFC	N HAEGEL	NAG 5 8650	147
11	FISK UNIV	J BIBRO	MSFC	H T CAULFRED	NAG 8 1402	454
11	FLA INTERNATIONAL UNIV	J P NORRIS	GSFC	J R WEBB	NAG 5 7325	164
11	FLA INTERNATIONAL UNIV	R HARTLE	GSFC	K HARDY	NAG 5 3826	163
11	FLORIDA ATLANTIC UNIV	D K WEST	GSFC	S W BRUENN	NAG 5 3903	167
11	FLORIDA INST OF TECH	D WEST	GSFC	M A WOOD	NAG 5 3103	167
11	FLORIDA INST OF TECH	T SCOTT	GSFC	C HELMSTETTER	NAG 5 3886	167
11	FLORIDA STATE UNIV	J BOYCE	HQ	J C CAIN	NAG 5 8284	170
11	FLORIDA STATE UNIV	M MEYER	GSFC	I FRIEDMAN	NAG 5 9845	170
11	FRANKLIN-MARSHALL COLLEGE	D K WEST	GSFC	D BACKMAN	NAG 5 6858	428
11	FRANKLIN-MARSHALL COLLEGE	L J CAROFF	ARC	D E BACKMAN	NCC 2 5263	428
11	GEORGE MASON UNIV	D K WEST	GSFC	J WALLIN	NAG 5 8834	496
11	GEORGE MASON UNIV	D K WEST	GSFC	L OZNEROY	NAG 5 7065	495
11	GEORGE MASON UNIV	J SWANK	GSFC	L TITARCHUK	NAG 5 7317	495
11	GEORGE MASON UNIV	R MUSHOTZKY	GSFC	R M SAMBRUNA	NAG 5 10038	496
11	GEORGE MASON UNIV	S KEMPLER	GSFC	M KAFATOS	NCC 5 143	496
11	GEORGE WASHINGTON UNIV	J BOYCE	GSFC	G M KEATING	NAG 5 8287	154
11	GEORGE WASHINGTON UNIV	R BEEBE	GSFC	D A LEVIN	NAG 5 8068	154
11	GEORGIA INST OF TECH	J BOYCE	HQ	D P BRADLEY	NAG 5 7450	185
11	GEORGIA STATE UNIV	D K WEST	GSFC	D GIES	NAG 5 6904	189
11	GEORGIA STATE UNIV	H HASAN	GSFC	S T MANSON	NAG 5 7752	189
11	GEORGIA STATE UNIV	H THRONSON	GSFC	D PERERA	NAG 5 4950	188
11	GEORGIA STATE UNIV	J P NORRIS	GSFC	H MILLER	NAG 5 7324	189
11	GEORGIA STATE UNIV	J P NORRIS	GSFC	H MILLER	NAG 5 7830	189
11	GEORGIA STATE UNIV	R POLIDAN	GSFC	H MILLER	NAG 5 6929	189
11	GEORGIA STATE UNIV	B PENN	MSFC	C WALTON	NAG 8 1392	232
11	GRAMBLING STATE UNIV	D F NAVA	GSFC	D CAMERON	NAG 5 4690	279
11	HARVARD UNIV	D HOLLAND	GSFC	M NAHUM	NAG 5 3709	278
11	HARVARD UNIV	D K WEST	GSFC	A GOODMAN	NAG 5 3564	278
11	HARVARD UNIV	D K WEST	GSFC	A LOEB	NAG 5 7039	280
11	HARVARD UNIV	D K WEST	GSFC	C S KOCHANNEK	NAG 5 4062	279
11	HARVARD UNIV	D K WEST	GSFC	L E HERNQUIST	NAG 5 8727	280
11	HARVARD UNIV	D NAVA	GSFC	D B JACOBSEN	NAG 5 4720	279
11	HARVARD UNIV	D NAVA	GSFC	D G AGEE	NAG 5 4713	279
11	HARVARD UNIV	D NAVA	GSFC	D X SASSELOV	NAG 5 4132	279
11	HARVARD UNIV	D RIND	GSFC	D JACOB	NAG 5 3553	278
11	HARVARD UNIV	D WEST	GSFC	A LOEB	NAG 5 3085	278
11	HARVARD UNIV	E SMITH	GSFC	R KIRSHNER	NAG 5 7768	280
11	HARVARD UNIV	G SONNEBORN	GSFC	J C RAYMOND	NAG 5 9019	280
11	HARVARD UNIV	H HASAN	GSFC	W H PARKINSON	NAG 5 4348	279
11	HARVARD UNIV	H HASAN	GSFC	W H PARKINSON	NAG 5 6569	279
11	HARVARD UNIV	J BERGSTRAHL	GSFC	D X SASSELOV	NAG 5 4216	279
11	HARVARD UNIV	J BOYCE	GSFC	A CAMERON	NAG 5 9275	280
11	HARVARD UNIV	J BOYCE	GSFC	A W CAMERON	NAG 5 8467	280
11	HARVARD UNIV	J BOYCE	GSFC	D B JACOBSEN	NAG 5 4430	279
11	HARVARD UNIV	J BOYCE	GSFC	S B JACOBSEN	NAG 5 9571	281
11	HARVARD UNIV	J BOYCE	HQ	A CAMERON	NAG 5 7610	280
11	HARVARD UNIV	J BOYCE	HQ	D SISTERSON	NAG 5 4302	279
11	HARVARD UNIV	J P NORRIS	GSFC	J E GRINDLAY	NAG 5 3808	278
11	HARVARD UNIV	J P NORRIS	GSFC	R NARAYAN	NAG 5 3516	278
11	HARVARD UNIV	J SWANK	GSFC	J E GRINDLAY	NAG 5 4053	279
11	HARVARD UNIV	J SWANK	GSFC	J GRINDLAY	NAG 5 7393	280
11	HARVARD UNIV	J SWANK	GSFC	J GRINDLAY	NAG 5 7403	280
11	HARVARD UNIV	R BEEBE	GSFC	W H PARKINSON	NAG 5 7859	280

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11	HARVARD UNIV	R MUSHOTZKY	GSFC	J E GRINDLAY	NAG 5 10046	281
11	HARVARD UNIV	T MORGAN	GSFC	J LUU	NAG 5 8603	279
11	HAVERFORD COLLEGE	R J OLIVERSEN	GSFC	S P BOUGHN	NAG 5 9285	428
11	HOWARD UNIV	M DIPIRRO	GSFC	A N THORPE	NAG 5 3141	156
11	HOWARD UNIV	R BEEBE	GSFC	J HALPERN	NAG 5 6835	157
11	INDIANA UNIV - BLOOMINGTON	B MERRIT	WFF	J MUSSER	NAG 5 5224	216
11	INDIANA UNIV - BLOOMINGTON	D NAVA	GSFC	D BASU	NAG 5 4618	216
11	INDIANA UNIV - BLOOMINGTON	D WEST	GSFC	STEIMAN-CAMERON	NAG 5 6773	216
11	INDIANA UNIV - BLOOMINGTON	G SONNEBORN	GSFC	S SHORE	NAG 5 9236	216
11	INDIANA UNIV - BLOOMINGTON	J BOYCE	GSFC	A BASU	NAG 5 9389	216
11	INDIANA UNIV - BLOOMINGTON	J BOYCE	GSFC	D H DURISEN	NAG 5 4295	216
11	INDIANA UNIV - BLOOMINGTON	J BOYCE	HQ	D DURISEN	NAG 5 7514	216
11	INDIANA UNIV - BLOOMINGTON	J SWANK	GSFC	K HONEYCUTT	NAG 5 6884	216
11	INDIANA UNIV - BLOOMINGTON	J SWANK	GSFC	T STEIMAN-CAMERON	NAG 5 7491	216
11	IONA COLLEGE	J F DOWDY	MSFC	R NOVAK	NAG 8 1273	375
11	IOWA STATE UNIV	D K WEST	GSFC	S D KAWALER	NAG 5 4060	222
11	IOWA STATE UNIV	D K WEST	GSFC	S D KAWALER	NAG 5 8352	223
11	IOWA STATE UNIV	D WEST	GSFC	P N APPLETON	NAG 5 3317	222
11	IOWA STATE UNIV	J GRANT	GSFC	D J SCHEERES	NAG 5 7756	223
11	IOWA STATE UNIV	J SWANK	GSFC	M A CATANESE	NAG 5 7070	222
11	IOWA STATE UNIV	J SWANK	GSFC	M A CATANESE	NAG 5 7423	222
11	IOWA STATE UNIV	S COHN	GSFC	T C CHEN	NAG 5 2930	222
11	IOWA STATE UNIV	W WAGNER	GSFC	L A WILLSON	NAG 5 8465	223
11	JOHNS HOPKINS UNIV	B BETTS	GSFC	R L MCNUTT	NAG 5 8516	246
11	JOHNS HOPKINS UNIV	B BETTS	GSFC	R W MCENTIRE	NAG 5 9719	248
11	JOHNS HOPKINS UNIV	B CAMPBELL	GSFC	A F CHENG	NAG 5 7080	243
11	JOHNS HOPKINS UNIV	BEEBE	GSFC	D L DOMINQUE	NAG 5 8334	245
11	JOHNS HOPKINS UNIV	D CLING	GSFC	D M RUST	NAG 5 7921	244
11	JOHNS HOPKINS UNIV	D EVANS	GSFC	D G SIBECK	NAG 5 7920	244
11	JOHNS HOPKINS UNIV	D EVANS	GSFC	D Y LUI	NAG 5 7797	244
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	A S SZALAY	NAG 5 3503	241
11	JOHNS HOPKINS UNIV	D K WEST	GSFC	G R MEURER	NAG 5 8279	245
11	JOHNS HOPKINS UNIV	D R MENGERS	GSFC	H W MOOS	NAG 5 32985	249
11	JOHNS HOPKINS UNIV	D R MENGERS	GSFC	K R SEMBACH	NAG 5 3485	241
11	JOHNS HOPKINS UNIV	D WEST	GSFC	D A NEUFELD	NAG 5 3316	241
11	JOHNS HOPKINS UNIV	D WEST	GSFC	D A NEUFELD	NAG 5 3542	241
11	JOHNS HOPKINS UNIV	D WEST	GSFC	G A KRISS	NAG 5 3255	241
11	JOHNS HOPKINS UNIV	E P SMITH	GSFC	R BURG	NAG 5 4736	242
11	JOHNS HOPKINS UNIV	G H MUCKLOW	GSFC	D G MITCHELL	NAG 5 8887	246
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	J A MORSE	NAG 5 8955	246
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	L BIANCHI	NAG 5 8965	247
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	S R MCCANDLISS	NAG 5 8994	247
11	JOHNS HOPKINS UNIV	G SONNEBORN	GSFC	T M HECKMAN	NAG 5 9012	247
11	JOHNS HOPKINS UNIV	H HASAN	GSFC	D R MCCANDLISS	NAG 5 4261	241
11	JOHNS HOPKINS UNIV	J BOHLIN	GSFC	D G MITCHELL	NAG 5 6568	243
11	JOHNS HOPKINS UNIV	J BOYCE	GSFC	S L MURCHIE	NAG 5 8171	245
11	JOHNS HOPKINS UNIV	J BREDEKAMP	GSFC	S R NYLUND	NAG 5 8149	245
11	JOHNS HOPKINS UNIV	J BREDEKAMP	GSFC	S WING	NAG 5 7189	243
11	JOHNS HOPKINS UNIV	J J WOLFF	GSFC	D GRANT	NAG 5 97179	249
11	JOHNS HOPKINS UNIV	J JELETIC	GSFC	H FORD	NAG 5 1617	241
11	JOHNS HOPKINS UNIV	J JELETIC	GSFC	H FORD	NAG 5 7697	244
11	JOHNS HOPKINS UNIV	J SWANK	GSFC	E PERLMAN	NAG 5 9534	248
11	JOHNS HOPKINS UNIV	J SWANK	GSFC	K A WEAVER	NAG 5 4626	242
11	JOHNS HOPKINS UNIV	J WOLFF	GSFC	T COUGHLIN	NAG 5 97271	250
11	JOHNS HOPKINS UNIV	K E WEAVER	GSFC	E T VISHNIAC	NCC 5 447	250
11	JOHNS HOPKINS UNIV	L CAROFF	ARC	T HENRY	NAG 2 1392	240
11	JOHNS HOPKINS UNIV	L KALUZIENSKI	GSFC	K A WEAVER	NAG 5 6917	243
11	JOHNS HOPKINS UNIV	M E ROSENTHAL	MSFC	R GIACCONI	NAG 8 1133	248
11	JOHNS HOPKINS UNIV	M MELLOTT	GSFC	R E ERLANDSON	NAG 5 9118	247
11	JOHNS HOPKINS UNIV	M SMITH	MSFC	R GIACCONI	NAG 8 1527	249
11	JOHNS HOPKINS UNIV	R A HOFFMAN	GSFC	N J FOX	NAG 5 9903	248
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	C P PARANICAS	NAG 5 7863	244
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	D F APPLEBY	NAG 5 7621	244
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	D MAUK	NAG 5 8191	245
11	JOHNS HOPKINS UNIV	R BEEBE	GSFC	D STROBEL	NAG 5 7769	244
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	A S SZALAY	NAG 5 9186	247



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11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	E COLBERT	NAG 5 9878	248
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	J H KROLIK	NAG 5 9187	247
11	JOHNS HOPKINS UNIV	R J OLIVERSEN	GSFC	T HECKMAN	NAG 5 6400	243
11	JOHNS HOPKINS UNIV	R M MUSHOTZKY	GSFC	T HECKMAN	NAG 5 9910	248
11	JOHNS HOPKINS UNIV	R MUSHOTZKY	GSFC	T HECKMAN	NAG 5 9948	248
11	JOHNS HOPKINS UNIV	R MUSHOTZKY	GSFC	W BLAIR	NAG 5 9963	248
11	JOHNS HOPKINS UNIV	R OLIVERSEN	GSFC	B S JAIN	NAG 5 9220	247
11	JOHNS HOPKINS UNIV	R OLIVERSEN	GSFC	E PERLMAN	NAG 5 9218	247
11	JOHNS HOPKINS UNIV	R OLIVERSEN	GSFC	E PERLMAN	NAG 5 9278	247
11	JOHNS HOPKINS UNIV	R OLIVERSEN	GSFC	E S PEARLMAN	NAG 5 9533	248
11	JOHNS HOPKINS UNIV	R OLIVERSEN	GSFC	L BIANCHI	NAG 5 9219	247
11	JOHNS HOPKINS UNIV	R POLIDAN	GSFC	G KRISS	NAG 5 6764	243
11	JOHNS HOPKINS UNIV	R POLIDAN	GSFC	W BLAIR	NAG 5 6732	243
11	JOHNS HOPKINS UNIV	R V STACHNIK	HQ	S CASERTANO	NAGW 3861	249
11	JOHNS HOPKINS UNIV	S CURTIS	GSFC	R GREEWALD	NAG 5 8361	245
11	JOHNS HOPKINS UNIV	T MORGAN	GSFC	H WEAVER	NAG 5 7186	243
11	JOHNS HOPKINS UNIV	W WAGNER	GSFC	D M RUST	NAG 5 7235	243
11	JOHNS HOPKINS UNIV	WWAGNER	GSFC	D M RUST	NAG 5 8331	245
11	KENNESAW STATE UNIV	F SIX	MSFC	T LAROSA	NAG 8 1107	189
11	KENT STATE UNIV	H HASAN	GSFC	D K YANG	NAG 5 3638	404
11	LOUISIANA STATE UNIV - BATON ROUGE	D K WEST	GSFC	G C CLAYATON	NAG 5 7933	233
11	LOUISIANA STATE UNIV - BATON ROUGE	D WEST	GSFC	G C CLAYTON	NAG 5 3338	233
11	LOUISIANA STATE UNIV - BATON ROUGE	D WEST	GSFC	G CHANMUGAM	NAG 5 3082	233
11	LOUISIANA STATE UNIV - BATON ROUGE	D WEST	GSFC	G CLAYTON	NAG 5 3531	233
11	LOUISIANA STATE UNIV - BATON ROUGE	J NORRIS	GSFC	J STACY	NAG 5 8100	233
11	LOUISIANA STATE UNIV - BATON ROUGE	J P NORRIS	GSFC	J STACY	NAG 5 7355	233
11	LOUISIANA STATE UNIV - BATON ROUGE	R J OLIVERSEN	GSFC	G C CLAYTON	NAG 5 9709	234
11	LOUISIANA STATE UNIV - BATON ROUGE	R J OLIVERSEN	GSFC	J FRANK	NAG 5 8497	233
11	LOUISIANA STATE UNIV - BATON ROUGE	R OLIVERSEN	GSFC	G CLAYTON	NAG 5 9203	234
11	LOYOLA MARYMOUNT UNIV	D EVANS	GSFC	J SANNY	NAG 5 7050	55
11	MASSACHUSETTS INST OF TECH	C P MCKAY	ARC	H B HAMMEL	NCC 2 1040	295
11	MASSACHUSETTS INST OF TECH	D C LING	GSFC	D J LAZARUS	NAG 5 7794	290
11	MASSACHUSETTS INST OF TECH	D C LING	GSFC	D J LAZARUS	NAG 5 7967	290
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	F A RASIO	NAG 5 8460	291
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	M H VAN PUTTEN	NAG 5 7012	288
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	S A RAPPAPORT	NAG 5 4057	286
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	S A RAPPAPORT	NAG 5 8368	291
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	V M KASPI	NAG 5 8063	290
11	MASSACHUSETTS INST OF TECH	D K WEST	GSFC	W H LEWIN	NAG 5 3558	285
11	MASSACHUSETTS INST OF TECH	G MUCKLOW	GSFC	M W BAUTZ	NAG 5 8668	291
11	MASSACHUSETTS INST OF TECH	J BERGSTRALH	GSFC	B BURKE	NAG 5 6523	288
11	MASSACHUSETTS INST OF TECH	J BERGSTRALH	GSFC	D L ELLIOT	NAG 5 3940	286
11	MASSACHUSETTS INST OF TECH	J BERGSTRALH	GSFC	D P BINZEL	NAG 5 3939	286
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	K I PAULARENA	NAG 5 8720	291
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	M T ZUBER	NAG 5 8707	291
11	MASSACHUSETTS INST OF TECH	J BOYCE	GSFC	T L GROVE	NAG 5 9525	282
11	MASSACHUSETTS INST OF TECH	J BOYCE	HQ	P L GROVE	NAG 5 4768	287
11	MASSACHUSETTS INST OF TECH	J KING	GSFC	A J LAZARUS	NAG 5 8031	290
11	MASSACHUSETTS INST OF TECH	J LING	GSFC	K PAULARENA	NAG 5 6473	288
11	MASSACHUSETTS INST OF TECH	J N CUZZI	ARC	J L ELLIOT	NAG 2 855	283
11	MASSACHUSETTS INST OF TECH	J NORRIS	GSFC	H BRADT	NAG 5 3109	285
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	G R RICKER	NAG 5 2165	285
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	V KASPI	NAG 5 3597	286
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	W LEWIN	NAG 5 7806	290
11	MASSACHUSETTS INST OF TECH	J P NORRIS	GSFC	W LEWIN	NAG 5 7807	290
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D CHAKRABARTY	NAG 5 4805	287
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D CHAKRABARTY	NAG 5 7328	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D CHAKRABARTY	NAG 5 7517	290
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	D CHAKRAGARTY	NAG 5 4114	286
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	E H MORGAN	NAG 5 7374	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	E MORGAN	NAG 5 3314	285
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	E MORGAN	NAG 5 6333	288
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	G CLARK	NAG 5 3281	285
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	G CLARK	NAG 5 4485	286
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	G W CLARK	NAG 5 7279	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	H V BRADT	NAG 5 7281	289

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11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	H V BRADT	NAG 5 8243	291
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILARD	NAG 5 4400	286
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILLARD	NAG 5 4870	287
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILLARD	NAG 5 7375	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	R A REMILLARD	NAG 5 7480	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	S A RAPPAPORT	NAG 5 8244	291
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	S RAPPAPORT	NAG 5 4115	286
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	V KASPI	NAG 5 4879	287
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W CUI	NAG 5 7242	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W CUI	NAG 5 7424	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W CUI	NAG 5 7484	290
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 4486	286
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 4733	287
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7336	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7337	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7344	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7408	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7476	289
11	MASSACHUSETTS INST OF TECH	J SWANK	GSFC	W LEWIN	NAG 5 7481	289
11	MASSACHUSETTS INST OF TECH	M MEYER	GSFC	J GROTZINGER	NAG 5 6722	288
11	MASSACHUSETTS INST OF TECH	M MEYER	GSFC	S A BOWRING	NAG 5 8814	291
11	MASSACHUSETTS INST OF TECH	N B CUMINGS	MSFC	G RICKER	NAG 8 37716	294
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	D DAVIS	NAG 5 3555	285
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	J KASTNER	NAG 5 4959	287
11	MASSACHUSETTS INST OF TECH	N WHITE	GSFC	W LEWIS	NAG 5 2734	285
11	MASSACHUSETTS INST OF TECH	P CRANE	GSFC	B F BURKE	NAG 5 9763	292
11	MASSACHUSETTS INST OF TECH	R J OLIVERSEN	GSFC	W H LEWIN	NAG 5 9135	292
11	MASSACHUSETTS INST OF TECH	R K OLIVERSEN	GSFC	W CUI	NAG 5 7990	290
11	MASSACHUSETTS INST OF TECH	R MUSHOTZKY	GSFC	B M GAENSLER	NAG 5 9962	293
11	MASSACHUSETTS INST OF TECH	R MUSHOTZKY	GSFC	C R CANIZARES	NAG 5 10008	293
11	MASSACHUSETTS INST OF TECH	R OLIVERSEN	GSFC	G ALLEN	NAG 5 9237	292
11	MASSACHUSETTS INST OF TECH	R PETRE	GSFC	M SCHATTENBURG	NCC 5 330	295
11	MASSACHUSETTS INST OF TECH	W DAVIS	GSFC	H BRADT	NAG 5 30612	294
11	MICHIGAN STATE UNIV	W J WAGNER	GSFC	R F STEIN	NAG 5 4031	303
11	MICHIGAN STATE UNIV	WJ WAGNER	GSFC	R F STEIN	NAG 5 9563	303
11	MICHIGAN TECHNOLOGICAL UNIV	D K WEST	GSFC	A BORYSOW	NAG 5 3689	304
11	MICHIGAN TECHNOLOGICAL UNIV	J P NORRIS	GSFC	R J NEMIROFF	NAG 5 4756	304
11	MIDDLEBURY COLLEGE	D K WEST	GSFC	P WINKLER	NAG 5 8020	492
11	MIDDLEBURY COLLEGE	W J WAGNER	GSFC	P WOLFSON	NAG 5 6118	492
11	MISSISSIPPI STATE UNIV	W K ANDERSON	LARC	J C NEWMAN	NCC 1 286	323
11	MONTANA STATE UNIV	D DETROYE	GSFC	W HISCOCK	NCC 5 240	332
11	MONTANA STATE UNIV	D K WEST	GSFC	S K LINK	NAG 5 3688	331
11	MONTANA STATE UNIV	D WEST	GSFC	S TSURUTA	NAG 5 3159	331
11	MONTANA STATE UNIV	M J HAGYARD	MSFC	R C CANFIELD	NAG 8 1399	331
11	MONTANA STATE UNIV	M MEYER	GSFC	D M WARD	NAG 5 8824	331
11	MONTANA STATE UNIV	M MEYER	GSFC	T R MCDERMOTT	NAG 5 8807	331
11	MONTANA STATE UNIV	W WAGNER	GSFC	D CANFIELD	NAG 5 6110	331
11	MOORHEAD STATE UNIV	J BOYCE	HQ	R O COLSON	NAG 5 7366	315
11	MOREHOUSE COLLEGE	J BERGSTRAHL	GSFC	J KING	NAG 5 6602	189
11	MORGAN STATE UNIV	C SOFFEN	GSFC	E DELOATCH	NAG 5 3508	250
11	NEW JERSEY INST OF TECH	A POLAND	GSFC	D WANG	NAG 5 3536	343
11	NEW JERSEY INST OF TECH	D EVANS	GSFC	P R GOODE	NAG 5 7454	344
11	NEW JERSEY INST OF TECH	W J WAGNER	GSFC	D R GOODE	NAG 5 4919	343
11	NEW JERSEY INST OF TECH	W J WANGER	GSFC	H WANG	NAG 5 8329	344
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	D E GARY	NAG 5 8466	344
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	H WANG	NAG 5 7085	343
11	NEW JERSEY INST OF TECH	W WAGNER	GSFC	M F WOODARD	NAG 5 8485	344
11	NEW MEXICO HIGHLANDS UNIV	T MORGAN	GSFC	D V RYAN	NAG 5 8734	353
11	NEW MEXICO INST OF MINING & TECH	M Y WEI	GSFC	F M PHILLIPS	NGT 5 30169	354
11	NEW MEXICO STATE UNIV - LAS CRUCES	B A MERRITT	GSFC	S J STOCHAJ	NAG 5 5159	355
11	NEW MEXICO STATE UNIV - LAS CRUCES	C P MCKAY	ARC	M MARLEY	NAG 2 6007	354
11	NEW MEXICO STATE UNIV - LAS CRUCES	D C LING	GSFC	D R WEBBER	NAG 5 7795	355
11	NEW MEXICO STATE UNIV - LAS CRUCES	D K WEST	GSFC	A KLYPIN	NAG 5 3842	355
11	NEW MEXICO STATE UNIV - LAS CRUCES	D K WEST	GSFC	A KLYPIN	NAG 5 8242	355
11	NEW MEXICO STATE UNIV - LAS CRUCES	D WEST	GSFC	J O BURNS	NAG 5 3362	355
11	NEW MEXICO STATE UNIV - LAS CRUCES	D WEST	GSFC	R A WALTERBOS	NAG 5 2426	354

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11	NEW MEXICO STATE UNIV - LAS CRUCES	F C JONES	GSFC	W R WEBBER	NAG 5 7524	355
11	NEW MEXICO STATE UNIV - LAS CRUCES	J P NORRIS	GSFC	B J MCNAMARA	NAG 5 3698	355
11	NEW MEXICO STATE UNIV - LAS CRUCES	R J OLIVERSEN	GSFC	M S MARLEY	NAG 5 9273	356
11	NEW MEXICO STATE UNIV - LAS CRUCES	T MORGAN	GSFC	D J CHANOVER	NAG 5 7904	355
11	NY UNIV	R OLIVERSEN	GSFC	G FARRAR	NAG 5 9246	377
11	NORTH CAROLINA STATE UNIV	D K WEST	GSFC	S P REYNOLDS	NAG 5 7153	392
11	NORTH CAROLINA STATE UNIV	N WHITE	GSFC	K BORKOWSKI	NAG 5 7406	393
11	NORTH DAKOTA STATE UNIV	R PATER	LARC	M SOUCEK	NGT 1 52159	396
11	NORTHEAST LOUISIANA UNIV	J M BOYCE	GSFC	D A DE HON	NAG 5 4293	234
11	NORTHERN ARIZONA UNIV	D NAVA	GSFC	D TEGLER	NAG 5 4357	26
11	NORTHERN ARIZONA UNIV	J BERGSTRALH	GSFC	C GRIFFITH	NAG 5 8525	26
11	NORTHERN ARIZONA UNIV	J BERGSTRALH	GSFC	D BARNES	NAG 5 4995	26
11	NORTHERN ARIZONA UNIV	J BOYCE	HQ	C A GRIFFITH	NAG 5 8146	26
11	NORTHERN ARIZONA UNIV	J BOYCE	HQ	D M CORNELISON	NAG 5 8203	26
11	NORTHERN ARIZONA UNIV	J BOYCE	HQ	S TEGLER	NAG 5 7210	26
11	NORTHERN ARIZONA UNIV	T MORGAN	GSFC	C A GRIFFITH	NAG 5 6790	26
11	NORTHERN ARIZONA UNIV	T MORGAN	GSFC	S C TEGLER	NAG 5 7757	26
11	NORTHERN ARIZONA UNIV	W HUEBNER	GSFC	D A GRIFFITH	NAG 5 4852	26
11	NORTHWESTERN UNIV	D K WEST	GSFC	R E TAAM	NAG 5 7011	203
11	NORTHWESTERN UNIV	D WEST	GSFC	M ULMER	NAG 5 2432	202
11	NORTHWESTERN UNIV	D WEST	GSFC	Q WANG	NAG 5 6413	203
11	NORTHWESTERN UNIV	J BOYCE	HQ	M S ROBINSON	NAG 5 8294	203
11	NORTHWESTERN UNIV	J P NORRIS	GSFC	M P ULMER	NAG 5 7889	203
11	NORTHWESTERN UNIV	J SWANK	GSFC	M P ULMER	NAG 5 7280	203
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11	UNIV OF CHICAGO	D K WEST	GSFC	D Q LAMB	NAG 5 4509	205
11	UNIV OF CHICAGO	D K WEST	GSFC	J E CARLSTROM	NAG 5 7986	207
11	UNIV OF CHICAGO	D K WEST	GSFC	M MILLER	NAG 5 8571	207
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11	UNIV OF CHICAGO	J BOYCE	GSFC	A M DAVIS	NAG 5 9362	208
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11	UNIV OF CHICAGO	J BREDEKAP	GSFC	P C FRISCH	NAG 5 8163	207
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11	UNIV OF CHICAGO	J LING	GSFC	P C FRISCH	NAG 5 7077	206
11	UNIV OF CHICAGO	J P NORRIS	GSFC	D Q LAMB	NAG 5 3670	205
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11	WASHINGTON UNIV - ST	A NURRIDDI	GSFC	K KELTON	NGT 5 50030	330
11	WASHINGTON UNIV - ST	B CAMPBELL	GSFC	L HASKIN	NAG 5 7140	328
11	WASHINGTON UNIV - ST	D BOGAN	GSFC	W MCKINNON	NAG 5 8899	329
11	WASHINGTON UNIV - ST	D NAVA	GSFC	C M HOHENBERG	NAG 5 9442	329
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	D FEGLEY	NAG 5 4323	327
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	F PODOSEK	NAG 5 9449	329
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	J T GLEAVES	NAG 5 8717	329
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	R L KOROTEV	NAG 5 8609	329
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	R M WALKER	NAG 5 8729	329
11	WASHINGTON UNIV - ST	J BOYCE	GSFC	R M WALKER	NAG 5 9801	329
11	WASHINGTON UNIV - ST	J BOYCE	HQ	D A PODOSEK	NAG 5 4098	327
11	WASHINGTON UNIV - ST	J BOYCE	HQ	D WALKER	NAG 5 6291	328
11	WASHINGTON UNIV - ST	J BOYCE	HQ	F PODOSEK	NAG 5 7149	329
11	WASHINGTON UNIV - ST	J BOYCE	HQ	T J BERNATOWICZ	NAG 5 8336	329
11	WASHINGTON UNIV - ST	M CHRISTI	MSFC	P L HINK	NCC 8 154	330
11	WASHINGTON UNIV - ST	M MEYER	GSFC	E L SHOCK	NAG 5 7696	329
11	WASHINGTON UNIV - ST	R BEEBE	GSFC	W B MCKINNON	NAG 5 8056	329
11	WESLEYAN UNIV	D NAVA	GSFC	D HERBST	NAG 5 4821	148
11	WEST VIRGINIA UNIV	J LING	GSFC	E SCIME	NAG 5 6468	527
11	WESTERN KENTUCKY UNIV	J D ROSENDHAL	GSFC	C H MCGRUDER	NAG 5 8762	232
11	WESTERN KENTUCKY UNIV	J P NORRIS	GSFC	M T CARINI	NAG 5 8383	232
11	WHITMAN COLLEGE	D WEST	GSFC	U SOFIA	NAG 5 8249	527
11	WHITMAN COLLEGE	G SONNEBORN	GSFC	U SOFIA	NAG 5 9249	527
11	WHITMAN COLLEGE	R POLIDAN	GSFC	U J SOFIA	NAG 5 8248	526
11	WICHITA STATE UNIV	D K WEST	GSFC	D ALEXANDER	NAG 5 3435	230
11	YALE UNIV	D K WEST	GSFC	P COPPI	NAG 5 7074	149
11	YALE UNIV	D K WEST	GSFC	P F DEMARQUE	NAG 5 8406	149
11	YALE UNIV	G MUCKLOW	GSFC	R J SCHOELKOPF	NAG 5 8589	149
11	YALE UNIV	J NORRIS	GSFC	P COPPI	NAG 5 6891	149
11	YALE UNIV	J SWANK	GSFC	C D BAILYN	NAG 5 8434	149
11	YALE UNIV	M MEYER	GSFC	R L DORIT	NAG 5 8813	149
11	YALE UNIV	R J OLIVERSEN	GSFC	C BAILYN	NAG 5 6404	149
11	YALE UNIV	R J OLIVERSEN	GSFC	P COPPI	NAG 5 9123	150
11	YALE UNIV	R J OLIVERSEN	GSFC	S ZEPF	NAG 5 9188	150
11	YALE UNIV	R J OLIVERSEN	GSFC	S ZEPF	NAG 5 9651	150

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12	CALIFORNIA INST OF TECH	A MURRIDIN	HQ	M OKUMURA	NGT 5 50200	50
12	CALIFORNIA INST OF TECH	D HOLLAND	GSFC	R A MEWALDT	NAG 5 3468	43
12	CALIFORNIA INST OF TECH	J BOYCE	GSFC	D J WASSERBURG	NAG 5 4076	44
12	CALIFORNIA INST OF TECH	J BOYCE	HQ	D J WASSERBURG	NAG 5 4083	44
12	CARNEGIE - MELLON UNIV	P DOTY	MSFC	G S ROHRER	NAG 8 1674	425
12	CHARLES COUNTY COMM COLLEGE	J A NUTH	GSFC	G KRAUSE	NCC 5 400	240
12	CLARKSON UNIV	P DOTY	MSFC	W R WILCOX	NAG 8 1703	361
12	CLEMSON UNIV - CLEMSON	D F NAVA	GSFC	D D CLAYTON	NAG 5 4329	448
12	CLEMSON UNIV - CLEMSON	J W CONNELL	LARC	Y P SUN	NGT 1 52238	450
12	CLEVELAND STATE UNIV	A E HEPP	GRC	D G HEHEMANN	NCC 3 817	403
12	CLEVELAND STATE UNIV	F I HURWITZ	GRC	J MASNOVI	NCC 3 376	402
12	CLEVELAND STATE UNIV	W MORLES	GRC	D W BALL	NCC 3 674	403
12	COLLEGE OF WILLIAM AND MARY	J W CONNELL	LARC	R A ORWOLL	NAG 1 2314	494
12	COLLEGE OF WILLIAM AND MARY	S A THIBEAULT	LARC	R L KIEFER	NCC 1 239	494
12	GEORGIA SOUTHERN UNIV	J ALLEN	GSFC	R NELSON	NCC 5 254	188
12	GRAMBLING STATE UNIV	M A MEADOR	GRC	D E HUBBARD	NCC 3 512	232
12	HAMPTON UNIV	F SCHMIDLIN	GSFC	D P MCCORMICK	NAG 5 5299	498
12	HAMPTON UNIV	T L ST. CLAIR	LARC	J C WILLIAMS	NAG 1 1941	497
12	IOWA STATE UNIV	W M HUO	ARC	M S GORDON	NCC 2 5349	223
12	JACKSON STATE UNIV	A POHORILLE	ARC	J LESZCZYNSKI	NCC 2 5398	322
12	KENT STATE UNIV	A F HEPP	GRC	A CHOWDHURY	NCC 3 729	404
12	KENT STATE UNIV	A F HEPP	GRC	C VARCAS ABURTO	NCC 3 563	404
12	KNOX COLLEGE	J FISHMAN	LARC	L C BUSH	NAG 1 2269	201
12	MICHIGAN STATE UNIV	S G CAMPBELL	GRC	T J PINNAVAIA	NAG 3 2472	302
12	MONTANA STATE UNIV	M MEYER	GSFC	M G WARD	NAG 5 3652	331
12	NY UNIV	S NASH-STEVEN	MSFC	S WILSON	NGT 8 52893	377
12	NORFOLK STATE UNIV	A F HEPP	GRC	S SUN	NAG 3 2289	500
12	NORTH CAROLINA A&T STATE UNIV	B PENN	MSFC	A P KENNEDY	NAG 8 1396	391
12	OAKWOOD COLLEGE	W BRANTLEY	MSFC	A VOLKOV	NAG 8 1734	4
12	OLD DOMINION UNIV	B J JENSEN	LARC	J B COOPER	NAG 1 1989	502
12	OLD DOMINION UNIV	B J JENSEN	LARC	K L WISE	NGT 1 52124	504
12	OLD DOMINION UNIV	H NEEDLEMAN	GSFC	A PIERCE	NAG 5 5131	503
12	PENN STATE UNIV	J M STOLTZFUS	JSC	K K KUO	NAG 9 1143	437
12	PRAIRIE VIEW A&M UNIV	M A MEADOR	GRC	L E CARSON-ISABELLE	NCC 3 577	462
12	PRINCETON UNIV	D NOENER	MSFC	D SAVILLE	NAG 8 1368	347
12	RENSSELAER POLYTECH INST	D LARKIN	GRC	L V INTERRANTE	NAG 3 1856	377
12	RENSSELAER POLYTECH INST	D LARKIN	GRC	L V INTERRANTE	NAG 3 2304	377
12	RICE UNIV	A TUYAHOV	GSFC	R C SMALLEY	NCC 9 77	465
12	RICE UNIV	K C CHUANG	GRC	A BARRON	NAG 3 2365	463
12	RICE UNIV	S FARMER	GRC	A R BARRON	NAS 3 97017	465
12	ROCHESTER INST OF TECH	A F HEPP	GRC	R RAFFAELLE	NCC 3 710	379
12	ROCHESTER INST OF TECH	N HAGEDORN	GRC	D P RAFFAELLE	NAG 3 2484	379
12	RUTGERS STATE UNIV - PISCATAWAY	N J JOHNSON	LARC	M JAFFE	NAG 1 2182	349
12	RUTGERS STATE UNIV - PISCATAWAY	N WHITE	GSFC	J HUGHES	NAG 5 6419	350
12	RUTGERS STATE U OF NJ COOK CAMPUS	N WHITE	GSFC	J HUGHES	NAG 5 4871	352
12	SAN FRANCISCO STATE UNIV	T L ROUSH	ARC	J B ORENBERG	NCC 2 5324	57
12	SAN JOSE STATE UNIV	D KOIRO	ARC	J F BECKER	NCC 2 5234	59
12	SOUTHWEST TEXAS STATE UNIV	A K ST. CLAIR	LARC	P E CASSIDY	NCC 1 324	466
12	SOUTHWEST TEXAS STATE UNIV	D M STOAKLEY	LARC	P E CASSIDY	NCC 1 376	466
12	SPELMAN COLLEGE	B G PENN	MSFC	B H CARDELINO	NCC 8 71	191
12	SPELMAN COLLEGE	Y R HICKS	GRC	P C CHEN	NAG 3 1974	190
12	STANFORD UNIV	H PARTIDGE	ARC	K J CHO	NCC 2 5400	68
12	STANFORD UNIV	P DOTY	MSFC	G M HOMSY	NAG 8 1692	66
12	STANFORD UNIV	T R GOVINDAN	ARC	H DAI	NCC 2 5270	67
12	STATE UNIV OF NY - STONY BROOK	P DOTY	MSFC	M RAFAILOVICH	NAG 8 1698	383
12	TEXAS SOUTHERN UNIV	C B AGE	JSC	B L WILSON	NCC 9 80	471
12	THE CATHOLIC UNIV OF AMERICA	J E ALLEN	GSFC	T THORN	NCC 5 452	162
12	THE CATHOLIC UNIV OF AMERICA	L J STIEF	GSFC	F L NESBITT	NCC 5 68	161
12	UNIV HOUSTON-HOUSTON	A MURRIDIN	HQ	G E FOX	NGT 5 50182	473
12	UNIV HOUSTON-HOUSTON	D F BLAKE	ARC	A D HAYMET	NCC 2 5396	473
12	UNIV OF MINN	H C NEDDELMAN	GSFC	C J WADDINGTON	NAG 5 5113	317
12	UNIV OF AKRON	F J MONTEGANI	GRC	D PERRY	NGT 3 52364	412
12	UNIV OF AKRON	M MEADOR	GRC	C PUGH	NCC 3 794	411
12	UNIV OF AKRON	M MEADOR	GRC	F W HARRIS	NCC 3 802	411
12	UNIV OF AKRON	P M HERGENROTHER	LARC	F W HARRIS	NAG 1 2067	410



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12	UNIV OF ARIZONA	J BOYCE	HQ	D J DRAKE	NAG 5 4084	29
12	UNIV OF ARKANSAS - LITTLE ROCK	C BRYAN	KSC	T VISWANATHAN	NAG10 181	41
12	UNIV OF CALIFORNIA - BERKELEY	J F BOYCE	GSFC	D NISHIZUMI	NAG 5 4992	73
12	UNIV OF CALIFORNIA - BERKELEY	M MEYER	GSFC	J BLANK	NAG 5 9280	77
12	UNIV OF CALIFORNIA - BERKELEY	R F PFAFF, JR.	GSFC	C W CARLSON	NAG 5 3596	72
12	UNIV OF CALIFORNIA - IRVINE	D HUBBARD	MSFC	P TABOREK	NAG 8 1437	88
12	UNIV OF CALIFORNIA - LOS ANGELES	D F NAVA	GSFC	D T WASSON	NAG 5 4331	92
12	UNIV OF CALIFORNIA - LOS ANGELES	J BOYCE	GSFC	D H WARREN	NAG 5 4215	92
12	UNIV OF CALIFORNIA - SAN DIEGO	J BOYCE	HQ	R LUGMAIR	NAG 5 4145	100
12	UNIV OF CALIFORNIA - SAN FRANCISCO	M H NEW	ARC	M A WILSON	NCC 2 1126	110
12	UNIV OF CALIFORNIA - SAN FRANCISCO	R L JAFFE	ARC	M A WILSON	NCC 2 5294	110
12	UNIV OF CALIFORNIA - SANTA CRUZ	A POHORILLE	ARC	A KANAVARIOTI	NCC 2 5309	118
12	UNIV OF CALIFORNIA - SANTA CRUZ	M L FONDA	ARC	A KANAVARIOTI	NCC 2 534	118
12	UNIV OF CALIFORNIA - SANTA CRUZ	R PETRE	GSFC	A ZABLUDOFF	NAG 5 4866	116
12	UNIV OF CHICAGO	J BOYCE	GSFC	D N CLAYTON	NAG 5 3986	205
12	UNIV OF DELAWARE	M A MEADOR	GRC	G R PALMESE	NCC 3 784	152
12	UNIV OF FLORIDA	B T UPCHURCH	LARC	K S SCHANZE	NAG 1 1809	173
12	UNIV OF FLORIDA	F ADAMS	KSC	R A YOST	NGT10 52626	178
12	UNIV OF FLORIDA	R R ANTELIFF	LARC	K S SCHANZE	NAG 1 2161	174
12	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	D KEIL	NAG 5 4212	194
12	UNIV OF IOWA	B GUYNES	MSFC	J M WIENCEK	NAG 8 1386	226
12	UNIV OF MISSOURI - SAINT LOUIS	J A HINKLEY	LARC	W J WELSH	NAG 1 1656	327
12	UNIV OF NEW MEXICO-ALBUQUERQUE	J BOYCE	GSFC	D J PAPIKE	NAG 5 4253	357
12	UNIV OF NEW ORLEANS	W B ALSTON	GRC	J P DROSKE	NAG 3 1906	237
12	UNIV OF NORTH CAROLINA - CHAPEL HILL	T L ST. CLAIR	LARC	E T SAMULSKI	NAG 1 2301	394
12	UNIV OF TOLEDO	K P KUNDU	GRC	K J DEWITT	NCC 3 513	416
12	UNIV OF TOLEDO	M L PUSEY	MSFC	A NADARAJAH	NCC 8 134	417
12	UNIV OF UTAH	J A HINKLEY	LARC	G D SMITH	NAG 1 2319	488
12	UNIV OF WASHINGTON	J H BELL	ARC	M P GOUTERMAN	NAG 2 1157	517
12	UNIV OF WASHINGTON	T BENCIC	GRC	D GOUTERMAN	NAG 3 2455	518
12	VA POLYTECH INST & ST UNIV	D M STOAKLEY	LARC	L T TAYLOR	NAG 1 1973	512
12	VA POLYTECH INST & ST UNIV	E J SIOCHI	LARC	T C WARD	NAG 1 2310	513
12	VA POLYTECH INST & ST UNIV	T L ST. CLAIR	LARC	L T TAYLOR	NAG 1 2324	513
12	VIRGINIA COMMONWEALTH UNIV	P M DOTY	MSFC	M S EL-SHALL	NAG 8 1484	516
12	WASHINGTON UNIV - ST	G MUCKLOW	GSFC	D LEOPOLD	NAG 5 8536	329
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	D A HASKIN	NAG 5 4172	327
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	D HOHENBERG	NAG 5 4173	327
12	WASHINGTON UNIV - ST	J BOYCE	GSFC	D M WALKER	NAG 5 4493	328
12	WASHINGTON UNIV - ST	S CHANG	ARC	E L SHOCK	NCC 2 5244	330
12	WESTERN KENTUCKY UNIV	F J MONTEGANI	GRC	W PAN	NGT 3 52353	232
13	ALABAMA A&M UNIV	A CHOW	MSFC	K HE	NAG 8 1335	1
13	ALABAMA A&M UNIV	B G PENN	MSFC	N KUKHTAREV	NAG 8 1620	2
13	ALABAMA A&M UNIV	B PENN	MSFC	S SARKISOV	NAG 8 1498	1
13	ALABAMA A&M UNIV	D FRAZIER	MSFC	M D AGGARWAL	NAG 8 1390	1
13	ALABAMA A&M UNIV	D FRAZIER	MSFC	P B LAI	NGT 8 52811	2
13	ALABAMA A&M UNIV	D PIERSON	JSC	M TADROS	NAG 9 1095	2
13	ALABAMA A&M UNIV	G ADAMOVSKY	GRC	D CURLEY	NCC 3 736	2
13	ALABAMA A&M UNIV	G ADAWOVSKY	GRC	P VENKATESWARLY	NAG 3 1956	1
13	ALABAMA A&M UNIV	W J LOVE	MSFC	B R REDDY	NAG 8 1125	1
13	ARIZONA STATE UNIV	M MEYYAPPAN	ARC	Y H ZHANG	NCC 2 5331	25
13	ARIZONA STATE UNIV	M MEYYAPPAN	ARC	Y ZHANG	NCC 2 5362	25
13	ARIZONA STATE UNIV	S SAINI	ARC	Y H ZHANG	NCC 2 5267	25
13	BETHUNE - COOKMAN COLLEGE	S E HETHERINGTON	GSFC	E F EKPO	NCC 5 426	163
13	BIRMINGHAM SOUTHERN COLLEGE	J F DOWDY	MSFC	K B BACHMANN	NAG 8 1280	4
13	BOSTON COLLEGE	N P BARNES	LARC	B DIBARTOIO	NAG 1 2057	272
13	BOSTON COLLEGE	W J WAGNER	GSFC	D F WEBB	NAG 5 4946	272
13	BOSTON UNIV	J BOHLIN	GSFC	D SPENCE	NAG 5 6126	273
13	BOSTON UNIV	J C BARNES	LARC	K P HARLING	NGT 1 52199	276
13	BOSTON UNIV	J GREBOWSKY	GSFC	D HUGHES	NAG 5 4680	273
13	BOSTON UNIV	J GREBOWSKY	GSFC	D MENDILLO	NAG 5 4246	273
13	BOSTON UNIV	J GREBOWSKY	GSFC	G L SISCOE	NAG 5 8135	275
13	BOSTON UNIV	M H ACUNA	GSFC	H E SPENCE	NAG 5 8039	275
13	BOSTON UNIV	M H ACUNA	GSFC	J CHEN	NAG 5 7841	274
13	BOSTON UNIV	M M MELLOTT	GSFC	D E SPENCE	NAG 5 4273	273
13	BOSTON UNIV	M M MELLOTT	GSFC	D MENDILLO	NAG 5 4707	273

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13	BOSTON UNIV	P CRANE	GSFC	S CHAKRABARTI	NAG 5 9582	275
13	BOSTON UNIV	R B ROGERS	GRC	R G HOLT	NAG 3 2121	272
13	BOSTON UNIV	R H PLESS	GSFC	S CHAKRABARTI	NAG 5 690	272
13	BOSTON UNIV	R HOWARD	GSFC	D E SPENCE	NAG 5 3748	272
13	BOSTON UNIV	W B JOHNSON	WFF	S CHAKRABARTI	NAG 5 5251	273
13	BOSTON UNIV	W JOHNSON	GSFC	S CHAKRABARTI	NAG 5 5137	273
13	BROWN UNIV	B FLOWERS	GSFC	G SEIDEL	NAG 5 5133	445
13	BROWN UNIV	B S SINGH	GRC	D ELBAUM	NAG 3 1929	444
13	BROWN UNIV	B S SINGH	GRC	G M SEIDEL	NAG 3 1927	444
13	CALIFORNIA INST OF TECH	A NURRIDIN	GSFC	F A HARRISON	NGT 5 50006	50
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	E C STONE	NAG 5 5216	45
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	E C STONE	NAG 5 5227	46
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	E C STONE	NAG 5 5228	46
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	F HARRISON	NAG 5 5289	46
13	CALIFORNIA INST OF TECH	B A MERRITT	GSFC	R A MEWALDT	NAG 5 5166	45
13	CALIFORNIA INST OF TECH	B S SINGH	GRC	N YEH	NAG 3 1899	43
13	CALIFORNIA INST OF TECH	G MUCKLOW	GSFC	F A HARRISON	NAG 5 8535	48
13	CALIFORNIA INST OF TECH	H C NEDDELMAN	GSFC	R A MEWALDT	NAG 5 5067	45
13	CALIFORNIA STATE UNIV - LONG BEACH	K HSIEH	GRC	J LIU	NAG 3 1830	52
13	CARNEGIE - MELLON UNIV	B S SINGH	GRC	S GAROFF	NAG 3 2449	425
13	CARNEGIE - MELLON UNIV	R B ROGERS	GRC	P J SIDES	NAG 3 2159	424
13	CARNEGIE - MELLON UNIV	R SKARDA	GRC	S GAROFF	NCC 3 465	426
13	CASE WESTERN RESERVE UNIV	A CHIT	GRC	P L TAYLOR	NCC 3 587	399
13	CASE WESTERN RESERVE UNIV	C R TALLEY	MSFC	C ROSENBLATT	NAG 8 1270	399
13	CASE WESTERN RESERVE UNIV	J BRUNSON	MSFC	D H MATTHIESEN	NCC 8 152	400
13	CENTRAL CONNECTICUT STATE UNIV	F SCHMIDLIN	GSFC	N C PARIKH	NAG 5 5246	147
13	CHRISTOPHER NEWPORT UNIV	R C SINGLETERRY, JR.	LARC	C K CHANG	NCC 1 277	493
13	CITY UNIV OF NY CITY COLLEGE	B S SINGH	GRC	C MALDARELLI	NAG 3 2167	360
13	CITY UNIV OF NY CITY COLLEGE	B SINGH	GRC	J KOPLIK	NAG 3 1836	360
13	CITY UNIV OF NY CITY COLLEGE	N P BARNES	LARC	R A ALFANO	NAG 1 2259	360
13	CLARK ATLANTA UNIV	A TEMKIN	GSFC	A MSEZANE	NAG 5 8792	182
13	CLARK ATLANTA UNIV	R ROOD	GSFC	D STEPHENSON-HAWK	NAG 5 6169	182
13	CLEMSON UNIV - CLEMSON	H C SHAW	GSFC	P J MCNULTY	NAG 5 8763	449
13	CLEMSON UNIV - CLEMSON	L W GURKIN	GSFC	M F LARSEN	NAG 5 5085	448
13	CLEMSON UNIV - CLEMSON	M MELLOTT	GSFC	M P HICKEY	NAG 5 7592	449
13	CLEMSON UNIV - CLEMSON	W B JOHNSON	GSFC	M F LARSEN	NAG 5 5186	449
13	CLEMSON UNIV - CLEMSON	W B JOHNSON	GSFC	M F LARSEN	NAG 5 5242	449
13	CLEMSON UNIV - CLEMSON	W B JOHNSON	GSFC	M F LARSEN	NAG 5 5259	449
13	CLEVELAND STATE UNIV	A CHAIT	GRC	J A LOCK	NCC 3 521	402
13	CLEVELAND STATE UNIV	C R MERCER	GRC	J LOCK	NAG 3 2232	401
13	CLEVELAND STATE UNIV	S K RUTLEDGE	GRC	P D HAMBOURGER	NCC 3 522	402
13	CLEVELAND STATE UNIV	S K RUTLEDGE	GRC	P HAMBOURGER	NCC 3 740	403
13	COLLEGE OF WILLIAM AND MARY	E I MADARAS	LARC	P HINDERS	NGT 1 52127	494
13	COLLEGE OF WILLIAM AND MARY	M A SMITH	LARC	D C BENNER	NCC 1 80	494
13	COLLEGE OF WILLIAM AND MARY	M H SMITH	LARC	D C BENNER	NCC 1 390	494
13	COLLEGE OF WILLIAM AND MARY	P H JOHNSTON	LARC	J S BOGHOSIAN	NGT 1 52180	494
13	COLLEGE OF WOOSTER	J W POE	MSFC	D T JACOBS	NAG 8 1433	403
13	COLORADO STATE UNIV	V K RAWLIN	GRC	P J WILBUR	NAG 3 1801	123
13	COLUMBIA UNIV	A NURRIDIN	HQ	M KAMIONKOWSKI	NGT 5 50184	368
13	COLUMBIA UNIV	F BLIVEN	GSFC	P SCHOSSER	NAG 5 5247	363
13	COLUMBIA UNIV	H C NEEDLEMAN	GSFC	E APRILE	NAG 5 5108	363
13	COLUMBIA UNIV	H NEEDLEMAN	GSFC	C HAILEY	NAG 5 5129	363
13	COLUMBIA UNIV	H NEEDLEMAN	GSFC	C HALLEY	NAG 5 5119	363
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13	COLUMBIA UNIV	W B JOHNSON	GSFC	D L WINDT	NAG 5 5254	363
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13	CORNELL UNIV	J W POE	MSFC	D M LEE	NAG 8 1445	373
13	CORNELL UNIV	L W GURKIN	GSFC	M C KELLEY	NAG 5 5080	370
13	CORNELL UNIV	M M MELLOTT	GSFC	D E SEYLER	NAG 5 4464	370
13	CORNELL UNIV	P F PENKO	GRC	I D BOYD	NAG 3 1451	368
13	CORNELL UNIV	R H PLESS	GSFC	C A TEPLY	NAG 5 5045	370

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13	CORNELL UNIV	W B JOHNSON	MSFC	P M KINTNER	NAG 5 5233	370
13	CORNELL UNIV	W JOHNSON	GSFC	P KINTNER	NAG 5 5134	370
13	CORNELL UNIV	W M SATTMAN	JSC	W M SALTZMAN	NAG 8 1372	373
13	DARTMOUTH COLLEGE	D EVANS	GSFC	D G LYON	NAG 5 4663	336
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13	DARTMOUTH COLLEGE	M H ACUNA	GSFC	W LOTKO	NAG 5 7803	337
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13	DARTMOUTH COLLEGE	S A CURTIS	GSFC	M K HUDSON	NAG 5 1098	336
13	DARTMOUTH COLLEGE	W B JOHNSON	GSFC	J W LABELLE	NAG 5 5238	337
13	DARTMOUTH COLLEGE	W B JOHNSON	GSFC	J W LABELLE	NAG 5 5239	337
13	DELAWARE STATE UNIV	W C EDWARDS	LARC	N MELIKECHI	NAG 1 2030	151
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13	FISK UNIV	N GEHRELS	GSFC	A BURGER	NAG 5 8876	454
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13	FISK UNIV	S G BAILEY	GRC	D O HENDERSON	NAG 3 1942	453
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13	HAMPTON UNIV	F J MONTEGANI	GRC	D R LYONS	NGT 3 52354	499
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13	HOWARD UNIV	N D PILTCH	GRC	P MISRA	NAG 3 1677	156
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13	INDIANA UNIV - BLOOMINGTON	B A MERRITT	GSFC	R E PEHL	NAG 5 5194	216
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13	JOHNS HOPKINS UNIV	W J WAGNER	GSFC	D M RUST	NAG 5 4955	242
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13	LOMA LINDA UNIV	F A CUCINOTTA	JSC	G A NELSON	NCC 9 79	55
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13	LOUISIANA STATE UNIV - BATON ROUGE	B A MERRITT	WFF	M L CHERRY	NAG 5 5297	233
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13	LOUISIANA STATE UNIV - BATON ROUGE	R HOWARD	GSFC	D P WEFEL	NAG 5 3770	233
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13	MASSACHUSETTS INST OF TECH	W J WAGNER	GSFC	T CHANG	NAG 5 9616	292
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13	NEW MEXICO STATE UNIV - LAS CRUCES	J GRANT	GSFC	V SOLOMATOV	NAG 5 8803	355
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13	PENN STATE UNIV	H C NEEDLEMAN	GSFC	J J BEATTY	NAG 5 5065	432
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13	UNIV OF ALABAMA - HUNTSVILLE	J BOHLIN	GSFC	D H COMFORT	NAG 5 4268	8
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13	UNIV OF MICHIGAN - ANN ARBOR	M H ACUNA	GSFC	R CLAUER	NAG 5 7785	309
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13	UNIV OF MICHIGAN - ANN ARBOR	R PLESS	GSFC	J KOZYRA	NAG 5 5030	308
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13	UNIV OF MICHIGAN - ANN ARBOR	W J EMRICH	MSFC	T KAMMASH	NAG 8 1250	311
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13	UNIV OF NEW HAMPSHIRE - DURHAM	D EVANS	GSFC	D M KISTLER	NAG 5 4695	338
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13	UNIV OF NEW HAMPSHIRE - DURHAM	H NEEDLEMAN	GSFC	J RYAN	NAG 5 5117	339
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13	UNIV OF NEW HAMPSHIRE - DURHAM	M H ACUNA	GSFC	A B GALVIN	NAG 5 8044	341
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13	UNIV OF NEW HAMPSHIRE - DURHAM	R H PLESS	GSFC	R B TORBERT	NAG 5 5033	339
13	UNIV OF NEW HAMPSHIRE - DURHAM	R HOWARD	GSFC	D A LYNCH	NAG 5 3747	338
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13	UNIV OF NEW HAMPSHIRE - DURHAM	W B JOHNSON	GSFC	K A LYNCH	NAG 5 5040	339
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13	UNIV OF NEW HAMPSHIRE - DURHAM	W J WAGNER	GSFC	T G FORBES	NAG 5 9614	342
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13	UNIV OF OREGON - EUGENE	B S SINGH	GRC	D J DONNELLY	NAG 3 1934	423
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13	UNIV OF ROCHESTER	C R MCCREIGHT	ARC	W J FORREST	NAG 2 1142	385
13	UNIV OF ROCHESTER	G STRINGFELLOW	GSFC	D M WATSON	NAG 5 9351	386
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13	UNIV OF TENNESSEE - KNOXVILLE	J COLE	MSFC	J W MUELHAUSER	NAS 8 97301	458
13	UNIV OF TENNESSEE - KNOXVILLE	J POE	MSFC	A J SANDERS	NAG 8 1442	457
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13	UNIV OF TEXAS - AUSTIN	B S SINGH	GRC	D J HEINZEN	NAG 3 1901	477
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13	UNIV OF TEXAS - DALLAS	G A SOFFEN	GSFC	R A HELLIS	NGT 5 23	485
13	UNIV OF TEXAS - DALLAS	L W GURKIN	GSFC	G D EARLE	NAG 5 5076	485
13	UNIV OF TEXAS - DALLAS	L W GURKIN	GSFC	R A HEELIS	NAG 5 5086	485
13	UNIV OF TEXAS - DALLAS	M M MELLOTT	GSFC	D A HEELIS	NAG 5 4465	484
13	UNIV OF TEXAS - DALLAS	M M MELLOTT	GSFC	D D EARLE	NAG 5 4187	484
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13	UNIV OF TEXAS - DALLAS	W B JOHNSON	GSFC	G D EARLE	NAG 5 5257	485
13	UNIV OF TEXAS - EL PASO	B PENN	MSFC	C DIRK	NAG 8 1393	486
13	UNIV OF TEXAS - EL PASO	D EVANS	GSFC	D E LOPEZ	NAG 5 8881	485
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13	UNIV OF VIRGINIA	C E GLASS	LARC	D A STAACK	NGT 1 52212	511
13	UNIV OF VIRGINIA	T L PARROTT	LARC	W E ZORUMSKI	NCC 1 361	510
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13	UNIV OF WASHINGTON	J GREBOWSKY	GSFC	D C WHIPPLE	NAG 5 4686	519
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13	UTAH STATE UNIV	J C BRINTON	GSFC	B G FEJER	NAG 5 5293	490
13	UTAH STATE UNIV	M M MELLOTT	GSFC	D G FEJER	NAG 5 4469	490
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13	WASHINGTON UNIV - ST	B A MERRITT	WFF	W R BINNS	NAG 5 5296	328
13	WASHINGTON UNIV - ST	H C NEEDLEMAN	GSFC	R W BINNS	NAG 5 5078	328
13	WASHINGTON UNIV - ST	H C NEEDLEMAN	GSFC	P L HINK	NAG 5 5114	328
13	WASHINGTON UNIV - ST	H NEEDLEMAN	GSFC	R BINNS	NAG 5 5110	328
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13	WASHINGTON UNIV - ST	M MILLIS	GRC	M S CONRAD	NAS 3 00094	330
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13	YALE UNIV	A E SZMKOWIAK	GSFC	D PROBER	NAG 5 7739	149
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19	ALABAMA A&M UNIV	B PENN	MSFC	B PENN	NAG 8 1400	1
19	AUBURN UNIV	P J GEORGE	GRC	H W BRANDHORST	NAS 3 99200	3
19	BAY MILLS COMM COLLEGE	A F HEPP	GRC	T DAVIS	NCC 3 609	302
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19	CARNEGIE - MELLON UNIV	P DOTY	MSFC	R F SEKERKA	NCC 8 1704	427
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19	CLARKSON UNIV	C TALLEY	MSFC	L L REGEL	NAG 8 1482	361
19	CLARKSON UNIV	M E HILL	GRC	S P LIN	NAG 3 1891	361
19	CLARKSON UNIV	P DOTY	MSFC	W R WILCOX	NAG 8 1266	361
19	COLLEGE OF WILLIAM AND MARY	S A THIBEAULT	LARC	R L KIEFER	NCC 1 327	494
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19	COLUMBIA UNIV	W B JOHNSON	GSFC	C J HAILEY	NAG 5 5260	363
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19	DUKE UNIV	D CARTER	MSFC	D C RICHARDSON	NAG 8 966	387
19	FISSK UNIV	A F HEPP	GRC	D O HENDERSON	NCC 3 575	454
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19	HAMPTON UNIV	D DESMARAIS	ARC	B FAISON	NGT 2 52261	499
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19	HARVARD UNIV	G MADDREA	LARC	S C WOFSEY	NAS 1 18946	281
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19	KENT STATE UNIV	A HEPP	GRC	D CHOWDHURY	NCC 3 734	404
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19	MASSACHUSETTS INST OF TECH	J KING	GSFC	K PAULARENA	NAG 5 9622	292
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19	MICHIGAN STATE UNIV	J GURMAN	GSFC	R F STEIN	NAG 5 8053	303
19	MICHIGAN TECHNOLOGICAL UNIV	C TALLEY	MSFC	T H COURTNEY	NAG 8 1478	305
19	MIDDLE TENNESSEE STATE UNIV	C TALLEY	MSFC	A C FRIEDLI	NAG 8 1486	454
19	MILES COLLEGE	E COTHRAN	MSFC	D B BHARWANI	NAG 8 1238	4
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19	MISSISSIPPI STATE UNIV	J A SALZMAN	GRC	R A ALTENKIRCH	NCC 3 221	323
19	MONTANA STATE UNIV	J GURMAN	GSFC	C C KANKELBORG	NAG 5 7877	331
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19	NEW MEXICO STATE UNIV - LAS CRUCES	T VON ROSENVINGE	GSFC	W R WEBBER	NAG 5 3304	354
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19	NORTH CAROLINA STATE UNIV	P DOTY	MSFC	N DIETZ	NAG 8 1686	393
19	NORTHEASTERN UNIV	C TALLEY	MSFC	A SACCO	NAG 8 1485	297
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19	NORTHWESTERN UNIV	P DOTY	MSFC	J ALKEMPER	NAG 8 1660	203
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19	OHIO STATE UNIV	C TALLEY	MSFC	P K GUPTA	NAG 8 1470	407
19	OHIO STATE UNIV	D W GRIFFIN	GRC	C D ANDERECK	NAG 3 2138	405
19	OLD DOMINION UNIV	M A TALLEY	LARC	G R HOY	NAG 1 2211	503
19	OREGON STATE UNIV	B BILLS	GSFC	G D EGBERT	NAG 5 6156	420
19	PENN STATE UNIV	C TALLEY	MSFC	R M GERMAN	NAG 8 1452	436
19	PENN STATE UNIV	D L UBRAN	GRC	R A YETTER	NCC 3 718	438
19	PENN STATE UNIV	M MEYYAPPAN	ARC	R J DAVIS	NAG 2 1165	430
19	PENN STATE UNIV	P DOTY	MSFC	J SINGH	NAG 8 1272	436
19	POLYTECH UNIV - BROOKLYN	B GUYNES	MSFC	A MYERSON	NAG 8 1370	377
19	PRAIRIE VIEW A&M UNIV	B L WHITE	HQ	T N FOGARTY	NCCW 86	463
19	PRAIRIE VIEW A&M UNIV	F A CUCINOTTA	JSC	R WILKINS	NCC 9 114	463
19	PRAIRIE VIEW A&M UNIV	J D ATKINSON	JSC	T N FOGARTY	NCC 9 50	463
19	PRAIRIE VIEW A&M UNIV	R E HARTLE	GSFC	T S HUANG	NAG 5 2317	462
19	PRINCETON UNIV	BC GUYNES	MSFC	D A SAVILLE	NAG 8 969	347
19	PRINCETON UNIV	F P CHIARAMONTE	GRC	D A SAVILLE	NAG 3 2380	345
19	PRINCETON UNIV	P DOTY	MSFC	D JOHNSON	NAG 8 1691	219
19	PURDUE UNIV	A JACKMAN	MSFC	M B KOSS	NAG 8 1488	378
19	RENSSELAER POLYTECH INST	J C DUH	GRC	P C WAYNER	NAG 3 1834	377
19	RENSSELAER POLYTECH INST	L B JETER	MSFC	M E GLICKSMAN	NAG 8 1468	378
19	RENSSELAER POLYTECH INST	B S SINGH	GRC	P G MULET	NAG 3 1851	463
19	RICE UNIV	C L TALLEY	MSFC	N J HALAS	NAG 8 1467	485
19	RICE UNIV	R HOFFMAN	GSFC	P REIFF	NAG 5 8380	464
19	RICE UNIV	A F HEPP	GRC	D P RAFFAELLE	NCC 3 806	379
19	ROCHESTER INST OF TECH	B MOTT	GSFC	D JOSEPH	NAG 5 9813	351
19	RUTGERS STATE UNIV - PISCATAWAY	B MOTT	GSFC	D JOSEPH	NAG 5 9833	352
19	RUTGERS STATE UNIV OF NJ NEW BRUNS	L SMITH	HQ	N C PARTRIDGE	NGT 5 50201	325
19	SAINT LOUIS UNIV	A BARNES	ARC	P J HAMILL	NCC 2 1060	58
19	SAN JOSE STATE UNIV	J F DOWDY	MSFC	W A PARKISON	NAG 8 1206	234
19	SOUTHEASTERN LOUISIANA UNIV	J F DOWDY	MSFC	S F TARSITANO	NAG 8 1367	466
19	SOUTHWEST TEXAS STATE UNIV	C MOORE	MSFC	B CARDELINO	NCC 8 144	191
19	SPELMAN COLLEGE	C TALLEY	MSFC	R S FEIGELSON	NAG 8 1457	65
19	STANFORD UNIV	D A REISS	MSFC	R S FEIGELSON	NAG 8 1151	65
19	STANFORD UNIV	J C DUH	GRC	G M HOMSY	NAG 3 1943	62
19	STANFORD UNIV	J GURMAN	GSFC	A B WALKER	NAG 5 7835	64
19	STANFORD UNIV	J GURMAN	GSFC	P SCHERRER	NAG 5 8878	64
19	STANFORD UNIV	R HOFFMAN	GSFC	M WALT	NAG 5 8025	64
19	STATE UNIV OF NY - STONY BROOK	C H SU	MSFC	M DUDLEY	NCC 8 164	384
19	STEVENS INST OF TECH	D MENCHAN	GSFC	T WILLIAMS	NCC 5 224	352
19	TAYLOR UNIV	R HOFFMAN	GSFC	H D VOSS	NAG 5 8077	220
19	THE CATHOLIC UNIV OF AMERICA	J A SLAVIN	GSFC	Y C WHANG	NAG 5 8619	160
19	THE CATHOLIC UNIV OF AMERICA	J GURMAN	GSFC	M GUATHAKURTA	NAG 5 8018	160
19	THE CATHOLIC UNIV OF AMERICA	J GURMAN	GSFC	N GOPALSWAMY	NCC 5 418	162
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19	TUFTS UNIV	J GURMAN	GSFC	K R LANG	NAG 5 8115	297
19	TUFTS UNIV	P M DOTY	MSFC	P CEBE	NAG 8 1480	298
19	UNIV HOUSTON-HOUSTON	B GUYNES	MSFC	J M FRIEDMAN	NAG 8 1363	472
19	UNIV HOUSTON-HOUSTON	F CHANG-DIAZ	JSC	D BERING	NAG 9 904	473
19	UNIV HOUSTON-HOUSTON	P DOTY	MSFC	L S PINSKY	NAG 8 1658	472
19	UNIV OF MINN	E K STANSBERY	JSC	R O PEPIN	NAG 9 1007	319
19	UNIV OF MINN	P DOTY	MSFC	J DERBY	NAG 8 1258	318
19	UNIV OF MINN	R HOFFMAN	GSFC	C CATELL	NAG 5 7885	317
19	UNIV OF MINN	R J MACDOWELL	GSFC	K GOETZ	NAS 5 32994	319
19	UNIV OF TEXAS-PAN AMERICAN	A BEAM	MSFC	A LUMSDAINE	NAG 8 1634	474

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19	UNIV OF ALABAMA - HUNTSVILLE	E ETHRIDGE	MSFC	W KINKLER	NCC 8 207	16
19	UNIV OF ALABAMA - HUNTSVILLE	J GURMAN	GSFC	G EMSLIE	NAG 5 7991	11
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19	UNIV OF ALABAMA - HUNTSVILLE	R HOFFMAN	GSFC	R SHELDON	NAG 5 9741	13
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19	UNIV OF ALASKA - FAIRBANKS	R J GUNDERMAN	GRC	C E MAYER	NAS 3 26401	21
19	UNIV OF ARIZONA	A T CHAI	GRC	J JACOBS	NAG 3 1869	27
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19	UNIV OF COLORADO - BOULDER	J GURMAN	GSFC	J TOOMRE	NAG 5 7996	136
19	UNIV OF COLORADO - BOULDER	R BINDSCHADLER	GSFC	T SCAMBOS	NAG 5 8477	139
19	UNIV OF COLORADO - BOULDER	R HOFFMAN	GSFC	D BAKER	NAG 5 8247	137
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19	UNIV OF MISSOURI - ROLLA	R W NIEDZWIECKI	GRC	P WHITFIELD	NCC 3 343	327
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19	UNIV OF NEW MEXICO-ALBUQUERQUE	M WATSON	MSFC	M OSINSKI	NAG 8 1606	358
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21	JAMES MADISON UNIV	M H CARPENTER	LARC	C D PRUETT	NAG 1 2033	499
21	KANSAS STATE UNIV	P J HALEY	LARC	A G KELKAR	NAG 1 2234	227
21	KANSAS STATE UNIV	P J HALEY	LARC	A G KELKAR	NCC 1 225	228
21	KANSAS STATE UNIV	P J HALEY	LARC	A G KELKAR	NCC 1 400	228
21	MOREHOUSE COLLEGE	A BEAM	MSFC	E MCDONALD	NAG 8 1492	189
21	MORGAN STATE UNIV	B MARKHAMR	GSFC	J SMID	NAG 5 4401	250
21	MT HOLYOKE COLLEGE	M STOUTSENBERGER	GSFC	C MORROW	NAG 5 6132	297
21	NY UNIV	D S SPICER	GSFC	M BERGER	NAG 5 7583	376
21	NORTH CAROLINA STATE UNIV	W P WINFREE	LARC	G P	NGT 1 52242	394
21	NORTH CAROLINA STATE UNIV	W P WINFREE	LARC	M L JOYNER	NGT 1 52196	394
21	SALISH KOOTENAI COLLEGE	D MENCHAN	GSFC	T OLSON	NAG 5 9541	332
21	SOUTH DAKOTA SCH OF MINES & TECH	N KHAZENIE	GSFC	F CAMPONE	NAG 5 7746	452
21	SOUTHERN UNIV & A&M COLLEGE	A BEAM	MSFC	M C DUNN	NAG 8 1833	235
21	SOUTHERN UNIV & A&M COLLEGE	A JOYCE	SSC	M SUBBLEFIELD	NAG13 98013	236
21	SOUTHERN UNIV - NEW ORLEANS	N SULLIVAN	JSC	P HEATH	NAG13 52	236
21	TRENHOLM STATE TECH COLLEGE	W LOVE	MSFC	C THOMPSON	NAG 8 1610	4
21	UNIV OF CALIFORNIA - SANTA CRUZ	M L FONDA	ARC	J D TRENT	NCC 2 5296	118
21	UNIV OF COLORADO - BOULDER	E A PALMER	ARC	P POISON	NCC 2 1104	141
21	UNIV OF NEW MEXICO-ALBUQUERQUE	J GOODRICH	GRC	D HAGSTROM	NAG 3 2322	357
21	UNIV OF NEW ORLEANS	R TRAVIS	SSC	K M AKYUZLU	NGT13 52721	237
21	UNIV OF TENNESSEE - KNOXVILLE	R DELOACH	LARC	C F LO	NAG 1 2185	456
21	UNIV OF TEXAS - EL PASO	R LEE	KSC	D ROJO	NAG10 287	486
21	UNIV OF TEXAS AT SAN ANTONIO	L ARMENDARIZ	JSC	M P BERRIOZABAL	NAG 9 950	487
21	UNIV OF WASHINGTON	G SOFFEN	GSFC	J BURKE	NGT 5 66	524
21	WEIZMANN INST OF SCIENCE	J C SOUTH, JR.	LARC	A BRANDT	NAG 1 1823	541
21	WESLEYAN UNIV	R J OLIVERSEN	GSFC	K V JOHNSTON	NAG 5 9064	148



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21	XAVIER UNIV - LOUISIANA	W LOVE	MSFC	R P HALE	NAG 8 1809	237
22	ADAMS STATE COLLEGE	M R LOWRY	ARC	S ROACH	NCC 2 5337	122
22	ARIZONA STATE UNIV	A VAZIRI	ARC	G M NIELSON	NAG 2 990	22
22	ARIZONA STATE UNIV	B L DI VITO	LARC	G C GANNOD	NAG 1 2241	22
22	ARIZONA STATE UNIV	G A SOFFEN	GSFC	J CAPONE	NGT 5 22	25
22	BOWIE STATE UNIV	D MENCHAN	GSFC	J LANGDON	NAG 5 7225	239
22	BOWIE STATE UNIV	J D BENNETT	GSFC	J M CAVALLO	NAG 5 7658	239
22	BOWIE STATE UNIV	W TRUSZKOWSKI	GSFC	D CARVALO	NCC 5 446	239
22	BOWIE STATE UNIV	W TRUSZKOWSKI	GSFC	S SRIVASTAVA	NCC 5 235	239
22	BOWIE STATE UNIV	J BREDEKAMP	GSFC	D L STERLING	NAG 5 4203	44
22	CALIFORNIA INST OF TECH	J FISCHER	GSFC	T STERLING	NAG 5 8576	48
22	CALIFORNIA INST OF TECH	M J GERALD-YAMASAKI	ARC	P SCHRODER	NCC 2 5271	50
22	CALIFORNIA STATE UNIV - LOS ANGELES	K GUPTA	DFRC	C WU	NAG 4 130	53
22	CARNEGIE - MELLON UNIV	J A SCHREINER	ARC	M HEBERT	NAG 2 1233	424
22	CARNEGIE - MELLON UNIV	M E DUENAS	ARC	J H MORRIS	NCC 2 1188	426
22	CARNEGIE - MELLON UNIV	M H SIMS	ARC	R G SIMMONS	NAG 2 1294	424
22	CARNEGIE - MELLON UNIV	M H SIMS	ARC	R S SIMMONS	NAG 2 1266	424
22	CARNEGIE - MELLON UNIV	M R LOWRY	ARC	R G SIMMONS	NAG 2 1288	424
22	CARNEGIE - MELLON UNIV	M SHIRLEY	ARC	R G SIMMONS	NAG 2 1402	424
22	CARNEGIE - MELLON UNIV	M SHIRLEY	ARC	R SIMMONS	NAG 2 1393	424
22	CARNEGIE - MELLON UNIV	N MUSCETTOLA	ARC	J SCHNEIDER	NAG 2 1408	424
22	CARNEGIE - MELLON UNIV	T LROUSH	ARC	M HEBERT	NCC 2 5319	426
22	CARNEGIE - MELLON UNIV	TL ROUGH	ARC	C GLYMOUR	NCC 2 1026	426
22	CAYUGA COUNTY COMM COLLEGE	W CAMPBELL	GSFC	R BROWN	NAG 5 7473	359
22	CITY UNIV OF NY CITY COLLEGE	J HARRINGTON	GSFC	S AUSTIN	NCC 5 98	361
22	CITY UNIV OF NY CITY COLLEGE	J TILTON	GSFC	G WOLBERG	NAG 5 7129	360
22	CLEMSON UNIV - CLEMSON	C MOBARRY	GSFC	W E LIGON	NAG 5 3835	448
22	CLEMSON UNIV - CLEMSON	G A SOFFEN	GSFC	LIGON	NGT 5 78	450
22	CLEMSON UNIV - CLEMSON	G A SOFFEN	GSFC	W B LIGON	NGT 5 21	450
22	CLEMSON UNIV - CLEMSON	G A SOFFEN	GSFC	W LIGON	NGT 5 85	450
22	CLEMSON UNIV - CLEMSON	G SOFFEN	GSFC	W B LIGON	NGT 5 109	450
22	CLEMSON UNIV - CLEMSON	J R LEKASHMAN	ARC	R M GEIST	NAG 2 1107	448
22	CLEMSON UNIV - CLEMSON	K MOE	GSFC	W LIGON	NAG 5 8605	449
22	COLLEGE OF WILLIAM AND MARY	F O HUCK	LARC	S K PARK	NCC 1 258	494
22	COLLEGE OF WILLIAM AND MARY	P W GOODE	LARC	A S MINER	NGT 1 52195	494
22	COLLEGE OF WILLIAM AND MARY	P W GOODE	LARC	G CIARDO	NAG 1 2168	494
22	CORNELL UNIV	S LAU	ARC	F B SCHNEIDER	NAG 2 893	368
22	DINE COLLEGE	L K ALDERETE	ARC	A SAM	NAG 2 6012	26
22	DUKE UNIV	K P GOLDEN	ARC	M L LITTMAN	NGT 2 52248	388
22	EAST CAROLINA UNIV	J P ZIEBARTH	ARC	J C HUSKAMP	NAG 2 8045	388
22	EAST TENNESSEE STATE UNIV	F A PATTERSON-HINE	ARC	J HENRY	NCC 2 5242	453
22	EAST TENNESSEE STATE UNIV	F A PATTERSON-HINE	ARC	J HENRY	NCC 2 5361	453
22	ELIZABETH CITY STATE UNIV	G D REESE	LARC	E LAWRENCE	NAG 1 2229	388
22	ELIZABETH CITY STATE UNIV	J BENNETT	GSFC	L HAYDEN	NCC 5 121	389
22	FAYETTEVILLE STATE UNIV	M STOUTSENBERGER	GSFC	L EDWARDS	NGT 5 90055	389
22	FLA INTERNATIONAL UNIV	GBUCKINGHAM	KSC	J JACKO	NAG10 229	164
22	FLA INTERNATIONAL UNIV	M GROH-HAMMOND	KSC	M CENTENO	NAG10 292	164
22	FLA INTERNATIONAL UNIV	S ROBERTS	KSC	I BECCERA-FERNANDEZ	NAG10 259	164
22	FLORIDA ATLANTIC UNIV	S YASSINI	ARC	T G KHOSGOFTAR	NCC 2 1141	167
22	FLORIDA INST OF TECH	J L BRESINA	ARC	R A MORRIS	NAG 2 1171	167
22	GEORGE MASON UNIV	J DORBAND	GSFC	P Y WANG	NAG 5 9781	496
22	GEORGE MASON UNIV	J DORBANDL	GSFC	P Y WANG	NAG 5 4868	495
22	GEORGE MASON UNIV	J J REHDER	LARC	T ARCISZEWSKI	NAG 1 1929	495
22	GEORGE MASON UNIV	J J REHDER	LARC	T ARCISZEWSKI	NAG 1 2258	495
22	GEORGE MASON UNIV	J LEMOIGNE	GSFC	T EL-GHAZAWI	NAG 5 8415	495
22	GEORGE MASON UNIV	K MOE	GSFC	R YANG	NAG 5 8607	495
22	GEORGE MASON UNIV	T AMES	GSFC	H GOMAA	NCC 5 267	496
22	GEORGE WASHINGTON UNIV	G A SOFFEN	GSFC	M H LOEW	NGT 5 30	156
22	GEORGIA INST OF TECH	A W STOFFEL	GSFC	C M MITCHELL	NAG 5 2227	185
22	GEORGIA INST OF TECH	C M FALSETTI	ARC	I F AKYILDIZ	NAG 2 1262	184
22	GEORGIA INST OF TECH	F J MONTEGANI	GRC	E W ZEGURA	NGT 3 52329	187
22	GEORGIA INST OF TECH	G SOFFEN	GSFC	M SMITH	NGT 5 31	188
22	GEORGIA INST OF TECH	P C SCHUTTE	LARC	A R PRITCHETT	NAG 1 2175	183
22	HOWARD UNIV	W TRUSZKOWSKI	GSFC	J TRIMBLE	NAG 5 8790	157
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22	IOWA STATE UNIV	M H SIMS	ARC	G THOMAS	NCC 2 5216	223
22	JOHNS HOPKINS UNIV	G H MUCKLOW	GSFC	S HAWKINS	NAG 5 8688	246
22	KANSAS STATE UNIV	M R LOWRY	ARC	D A SCHMIDT	NAG 2 1209	228
22	LA SALLE UNIV	D G SICKOREZ	JSC	M TAVANA	NAG 9 1196	428
22	LOUISIANA STATE UNIV - BATON ROUGE	S SAINI	ARC	A NAKANO	NCC 2 5320	234
22	LOUISIANA STATE UNIV - BATON ROUGE	S SAINI	ARC	R K KALIA	NAG 2 1318	232
22	MASSACHUSETTS INST OF TECH	D E ECKMARDT	LARC	N LEVESON	NAG 1 2239	283
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22	MASSACHUSETTS INST OF TECH	S LAU	ARC	B C WILLIAMS	NAG 2 1388	284
22	MASSACHUSETTS INST OF TECH	S LAU	ARC	L R YOUNG	NCC 2 570	295
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22	MASSACHUSETTS INST OF TECH	W CLANCEY	ARC	S LERMAN	NGT 2 52256	296
22	MASSACHUSETTS INST OF TECH	Y K LIU	ARC	R L RIVEST	NAG 2 1136	283
22	MICHIGAN TECHNOLOGICAL UNIV	J R FISCHER	GSFC	D MERKEY	NAG 5 8796	305
22	MORGAN STATE UNIV	J BENNETT	GSFC	W LUPTON	NCC 5 122	251
22	NEW MEXICO STATE UNIV - LAS CRUCES	R E STREITMATTER	GSFC	S STOCHAJ	NCC 5 422	356
22	NORTH CAROLINA A&T STATE UNIV	M G SHATTO	ARC	A C ESTERLINE	NAG 2 1413	390
22	NORTH CAROLINA A&T STATE UNIV	W TRUSZKOWSKI	GSFC	A ESTERLINE	NAG 5 4102	390
22	NORTH CAROLINA STATE UNIV	P S GHUMAN	GSFC	C GLOSTER	NAG 5 7942	393
22	NORTHWESTERN UNIV	A GRADY	ARC	V E TAYLOR	NCC 2 1013	203
22	NORTHWESTERN UNIV	M H SHIRLEY	ARC	K D FORBUS	NCC 2 1017	203
22	OHIO STATE UNIV	R J KERCEZEWSKI	GRC	Y F ZHENG	NAG 3 2256	405
22	OHIO UNIV	B PFAR	GSFC	L WELCH	NAS 5 00185	409
22	OHIO UNIV	J M SEATON	LARC	R L WILLIAMS	NAG 1 2099	409
22	OLD DOMINION UNIV	E SIMAN-TOV	LARC	R MUKKAMALA	NAG 1 2143	502
22	OLD DOMINION UNIV	M M LITTLE	LARC	K MALY	NAS 1 99160	503
22	OREGON GRADUATE INST OF SCI & TECH	W F BROOKS	ARC	D HAMMERSTROM	NAG 2 1268	419
22	OREGON STATE UNIV	C H SCHULBACH	ARC	C M PANCAKE	NAG 2 1123	419
22	OREGON STATE UNIV	K MOE	GSFC	M S ABBOTT	NAG 5 8400	421
22	PENN	R OLIVERSEN	GSFC	R F KNACKE	NAG 5 3368	429
22	PENN STATE UNIV	A J AHUMADA	ARC	R KASTURI	NAG 2 1410	430
22	PENN STATE UNIV	A PATTERSON-HINE	ARC	D C LANG	NAG 2 1312	430
22	PENN STATE UNIV	L S TONE	ARC	R KASTRUI	NAG 2 1152	430
22	PENN STATE UNIV	T J BARTH	ARC	J XU	NAG 2 1236	430
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22	RICE UNIV	J R FISCHER	GSFC	K KENNEDY	NAG 5 2736	463
22	RUTGERS STATE UNIV - PISCATAWAY	M R LOWRY	ARC	S AMAREL	NAG 2 1234	349
22	RUTGERS STATE UNIV - PISCATAWAY	R PETRE	GSFC	J HUGHES	NAG 5 6420	350
22	SAN FRANCISCO STATE UNIV	P R GRAMS	ARC	H SHAHNASSER	NCC 2 5301	57
22	SAN JOSE STATE UNIV	K SWANSON	ARC	P HAMILL	NCC 2 5248	59
22	SAN JOSE STATE UNIV	M E LIVINGSTON	ARC	R FATOOHI	NCC 2 1015	58
22	SAN JOSE STATE UNIV	S HASSAN	ARC	G POUR	NAG 2 1421	57
22	SAN JOSE STATE UNIV	T A LASINSKI	ARC	R FATOOHI	NCC 2 1071	58
22	SOUTH CAROLINA STATE UNIV	J BENNETT	GSFC	D K WALTER	NCC 5 116	451
22	SOUTHERN UNIV & A&M COLLEGE	D F NOGA	GRC	D MOREMAN	NAG 3 2076	235
22	SOUTHERN UNIV & A&M COLLEGE	G S LEE	ARC	S K TRIVEDI	NAG 2 1159	235
22	SOUTHERN UNIV & A&M COLLEGE	P NORVIG	ARC	C DEBESSONET	NAG 2 1273	235
22	STANFORD UNIV	C R STOKER	ARC	B B LUSIGNAN	NCC 2 5272	68
22	STANFORD UNIV	D J KORSMEYER	ARC	L HESSELINK	NCC 2 5269	67
22	STANFORD UNIV	D KORSMEYER	ARC	L HESSELINK	NCC 2 5211	67
22	STANFORD UNIV	E M HUFF	ARC	T H MENG	NAG 2 1065	61
22	STANFORD UNIV	H THOMAS	ARC	S M ROCK	NAG 2 1330	61
22	STANFORD UNIV	H THOMAS	ARC	S ROCK	NCC 2 1154	67
22	STANFORD UNIV	J A KURIEN	ARC	R E FIKES	NAG 2 1337	61
22	STANFORD UNIV	K J SWANSON	ARC	B J CANTWELL	NCC 2 5286	68
22	STANFORD UNIV	M GERALD-YAMASAKI	ARC	H GARCIA-MOLINA	NCC 2 5278	68
22	STANFORD UNIV	M H SIMS	ARC	S M ROCK	NCC 2 1004	66
22	STANFORD UNIV	P S MINER	LARC	D L DILL	NAS 1 98139	66
22	STANFORD UNIV	S LAU	ARC	D L DILL	NAG 2 891	61
22	STANFORD UNIV	W J CLANCY	ARC	L J LEIFFER	NAG 2 1257	61
22	STATE UNIV OF NY - STONY BROOK	D WEST	GSFC	F SWETSY	NAG 5 8377	383
22	TENNESSEE STATE UNIV	J HARRINGTON	GSFC	W A SMITH	NCC 5 96	455
22	TENNESSEE STATE UNIV	K A FREEMAN	ARC	W A SMITH	NAG 2 1419	454

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22	TENNESSEE STATE UNIV	M E DUENAS	ARC	W A SMITH	NCC 2 1205	455
22	TEXAS A&M UNIV-KINGSVILLE	W LOVE	MSFC	B SCHREUR	NAG 8 1650	471
22	TEXAS SOUTHERN UNIV	Y O GAWDIAK	ARC	O H CRINER	NAG 2 1447	471
22	TEXAS TECH UNIV	C K GARY	ARC	D J MEHRL	NAG 2 1077	471
22	THE UNIV OF CENTRAL FLORIDA	C G STEVENSON	KSC	F J GOMEZ	NAG10 273	172
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22	TUFTS UNIV	J F DOWDY	MSFC	K P LENTL	NAG 8 1311	298
22	TULANE UNIV	K MOE	GSFC	C KOUTSOUGERAS	NAG 5 8570	236
22	UNIV HOUSTON-HOUSTON	J YAN	ARC	B CHAPMAN	NCC 2 5394	473
22	UNIV HOUSTON-HOUSTON	R SAVELY	JSC	B LOFTIN	NAG 9 985	473
22	UNIV OF MINN	J BREDEKAMP	GSFC	P M HUMPHREYS	NAG 5 3998	316
22	UNIV OF MINN	J R LEKASHMAN	ARC	M T O	NAG 2 1308	316
22	UNIV OF MINN	R W BUTLER	LARC	M E HEMDAHL	NAG 1 2242	315
22	UNIV OF MINN	S SAINI	ARC	V KAMAR	NCC 2 5317	319
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22	UNIV	R T SAVELY	JSC	H WANG	NAG 9 1247	476
22	UNIV OF ALABAMA - HUNTSVILLE	J BEHNKE	GSFC	D GRAVES	NAG 5 9585	13
22	UNIV OF ALABAMA - HUNTSVILLE	J BREDEKAMP	GSFC	D G RICHARDS	NAG 5 4003	8
22	UNIV OF ALABAMA - HUNTSVILLE	J P ZIEBARTH	ARC	S J GRAVES	NAG 2 6037	8
22	UNIV OF ALABAMA - HUNTSVILLE	M GOLIGHTLY	JSC	D F SMART	NAG 9 1011	14
22	UNIV OF ARIZONA	D WEST	GSFC	T FLEMMING	NAG 5 3238	28
22	UNIV OF ARIZONA	J BREDEKAMP	GSFC	D MERENYI	NAG 5 4001	29
22	UNIV OF CALIFORNIA - BERKELEY	B J GLASS	ARC	L A ZADEH	NAG 2 1177	70
22	UNIV OF CALIFORNIA - BERKELEY	D J KORSMEYER	ARC	R F MALINA	NCC 2 966	79
22	UNIV OF CALIFORNIA - BERKELEY	J BREDEKAMP	GSFC	G SMOOT	NAG 5 3941	72
22	UNIV OF CALIFORNIA - BERKELEY	J D SMITH	ARC	S S SASTRY	NGT 2 52259	81
22	UNIV OF CALIFORNIA - BERKELEY	LOWRY	ARC	R A NEWTON	NCC 2 5287	80
22	UNIV OF CALIFORNIA - BERKELEY	M M SIMS	ARC	L W STARK	NAG 2 1135	70
22	UNIV OF CALIFORNIA - BERKELEY	M R LOWREY	ARC	T A HENZINGER	NAG 2 1214	70
22	UNIV OF CALIFORNIA - BERKELEY	M R LOWRY	ARC	A AOLEM	NAG 2 1210	70
22	UNIV OF CALIFORNIA - DAVIS	A VAZIRI	ARC	B HAMANN	NAG 2 1216	83
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22	UNIV OF CALIFORNIA - DAVIS	D KWAK	ARC	M HAFEZ	NCC 2 5387	86
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22	UNIV OF CALIFORNIA - IRVINE	J DORBAND	GSFC	I SCHERSON	NAG 5 3692	87
22	UNIV OF CALIFORNIA - LOS ANGELES	B H WHITAKER	ARC	M GERLA	NAG 2 1249	90
22	UNIV OF CALIFORNIA - LOS ANGELES	T J BARTH	ARC	T F CHAN	NAG 2 1238	90
22	UNIV OF CALIFORNIA - SAN DIEGO	A NURRIDIN	HQ	E MJOLSESS	NGT 5 50169	109
22	UNIV OF CALIFORNIA - SAN DIEGO	C H SCHULBACK	ARC	F BERMAN	NGT 2 52251	109
22	UNIV OF CALIFORNIA - SAN DIEGO	J BREDEKAMP	GSFC	D C PUETTER	NAG 5 3944	100
22	UNIV OF CALIFORNIA - SANTA BARBARA	K MOE	GSFC	L L HILL	NAG 5 8542	113
22	UNIV OF CALIFORNIA - SANTA CRUZ	A VAZIRI	ARC	A PANG	NCC 2 5281	118
22	UNIV OF CALIFORNIA - SANTA CRUZ	A VAZIRI	ARC	A VANGELDER	NAG 2 1239	116
22	UNIV OF CALIFORNIA - SANTA CRUZ	A VAZIRI	ARC	J WILHELMS	NAG 2 991	116
22	UNIV OF CALIFORNIA - SANTA CRUZ	G D YAMASKI	ARC	A PANG	NCC 2 5207	118
22	UNIV OF CHICAGO	D SPICER	GSFC	D OLSON	NAG 5 9016	207
22	UNIV OF COLORADO - BOULDER	G MUCKLOW	GSFC	E R HANSEN	NAG 5 8643	137
22	UNIV OF COLORADO - BOULDER	J BREDEKAMP	GSFC	M M LIGHTNER	NAG 5 3997	129
22	UNIV OF COLORADO - BOULDER	K MOE	GSFC	R L WEAVER	NAG 5 8399	137
22	UNIV OF COLORADO - BOULDER	R OLIVERSEN	GSFC	N SCHNEIDER	NAG 5 6909	133
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22	UNIV OF CONNECTICUT	F MARTIN	JSC	M MOREAU	NAG 9 1243	147
22	UNIV OF DAYTON	W D IVANCIC	GRC	M ATIQUZZAMAN	NAG 3 2318	413
22	UNIV OF FLORIDA	A T LEE	JSC	Y H LEE	NCC 9 84	177
22	UNIV OF GREENWICH	S SAINI	ARC	M CROSS	NAG 2 1339	541
22	UNIV OF HAWAII AT MANOA - HONOLULU	R OLIVERSEN	GSFC	R D JOSEPH	NAG 5 3370	193
22	UNIV OF HOUSTON - CLEAR LAKE	R T SAVELY	JSC	E T DICKERSON	NCC 9 30	476
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	C CARLISLE	GSFC	M FOLK	NAG 5 2040	211
22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G A SOFFEN	GSFC	P SAYLOR	NGT 5 84	214
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22	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	K A FREEMAN	ARC	K NAHRSTEDT	NAG 2 1406	210
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22	UNIV OF MARYLAND - COLLEGE PARK	C Y CHEUNG	GSFC	N ROUSSOPOULOS	NAG 5 2926	253
22	UNIV OF MARYLAND - COLLEGE PARK	D E JAMISON	GSFC	V R BASIL	NCC 5 170	267
22	UNIV OF MARYLAND - COLLEGE PARK	H PARK	GSFC	C F MARTIN	NCC 5 353	267
22	UNIV OF MARYLAND - COLLEGE PARK	J BREDEKAMP	GSFC	D C GOODRICH	NAG 5 4313	255
22	UNIV OF MARYLAND - COLLEGE PARK	J LEMONIGNE	GSFC	J JAJA	NAG 5 6699	257
22	UNIV OF MARYLAND BALTIMORE COUNTY	A ROBERTS	GSFC	D S EBERT	NCC 5 361	271
22	UNIV OF MARYLAND BALTIMORE COUNTY	J R LEKASHMAN	ARC	E L MILLER	NAG 2 1094	269
22	UNIV OF MARYLAND BALTIMORE COUNTY	M S BURRELL	GSFC	L M HAYDEN	NGT 5 48	271
22	UNIV OF MASSACHUSETTS - AMHERST	J BRESINA	ARC	S ZILBERSTEIN	NAG 2 1394	298
22	UNIV OF MICHIGAN - ANN ARBOR	A NURRIDIN	HQ	M WELLMAN	NGT 5 50199	314
22	UNIV OF MICHIGAN - ANN ARBOR	G BURKINGHAM	KSC	A PRAKASH	NGT10 52613	314
22	UNIV OF MONTANA	A PATTERSON-HINE	ARC	J HENRY	NCC 2 5397	333
22	UNIV OF NEVADA - LAS VEGAS	J BREDEKAMP	GSFC	D LATIFI	NAG 5 3994	335
22	UNIV OF NEW ORLEANS	A JOYCE	SSC	E RUSSO	NGT13 52714	237
22	UNIV OF NORTH CAROLINA - CHAPEL HILL	H THOMAS	ARC	G BISHOP	NGT 2 52254	395
22	UNIV OF NORTH CAROLINA - CHAPEL HILL	R OLIVERSEN	GSFC	C EVANS	NAG 5 3100	394
22	UNIV OF NORTH DAKOTA	D R PLUMER	GRC	M S ALI	NAG 3 1911	396
22	UNIV OF NOTRE DAME	D FISHER	DFRC	R NELSON	NAG 4 123	221
22	UNIV OF PUERTO RICO - MAYAGUEZ	R TRAVIS	SSC	M ROSADO	NGT13 52746	540
22	UNIV OF SOUTH CAROLINA-COLUMBIA	R TRAVIS	SSC	J JENSEN	NGT13 52723	452
22	UNIV OF SOUTHERN CALIFORNIA	M H SIMS	ARC	M MATARIC	NAG 2 1264	120
22	UNIV OF SOUTHERN CALIFORNIA	P E FRIEDLAND	ARC	H CHALUPSKY	NAG 2 864	119
22	UNIV OF SOUTHWESTERN LOUISIANA	W CAMPBELL	GSFC	D PISSINOU	NAG 5 7127	237
22	UNIV OF TENNESSEE - KNOXVILLE	J R FISCHER	GSFC	J DONGARRA	NAG 5 8773	457
22	UNIV OF TENNESSEE - KNOXVILLE	S SAINI	ARC	J DONGARRA	NCC 2 5274	458
22	UNIV OF TENNESSEE - KNOXVILLE	S SAINI	ARC	J DONGARRA	NCC 2 5285	458
22	UNIV OF TENNESSEE - KNOXVILLE	S SAINI	ARC	J DONGARRA	NCC 2 5310	458
22	UNIV OF TENNESSEE - KNOXVILLE	SSAINI	ARC	J DONGARRA	NCC 2 5312	458
22	UNIV OF TEXAS - ARLINGTON	J YAN	ARC	S K DAS	NCC 2 5395	477
22	UNIV OF TEXAS - AUSTIN	B COCKRELL	JSC	R H BISHOP	NGT 9 35	484
22	UNIV OF TEXAS - AUSTIN	G A SOFFEN	GSFC	J FAMIGLIETTI	NGT 5 33	483
22	UNIV OF TEXAS - AUSTIN	M GERALD-YAMASAKI	ARC	C BAJAJ	NCC 2 5276	483
22	UNIV OF TEXAS - AUSTIN	R SAVELY	JSC	C C STOUT	NAG 9 745	481
22	UNIV OF TEXAS - EL PASO	J BENNETT	GSFC	M KOLITSKY	NCC 5 97	486
22	UNIV OF TEXAS - EL PASO	M R LOWRY	ARC	A Q GATES	NAG 2 1012	485
22	UNIV OF TOLEDO	W K GERDES	LARC	A AETEH	NAG 1 2244	414
22	UNIV OF VIRGINIA	K J HAYHURST	LARC	J C KNIGHT	NAG 1 2290	506
22	UNIV OF VIRGINIA	K MOE	GSFC	J C FRENCH	NAG 5 8585	509
22	UNIV OF VIRGINIA	K MOE	GSFC	J FRENCH	NAG 5 9747	510
22	UNIV OF WASHINGTON	A ROBERTS	GSFC	T FURNESS	NCC 5 363	524
22	UNIV OF WASHINGTON	E A PALMER	ARC	N G LEVESON	NCC 2 982	524
22	UNIV OF WEST FLORIDA	M E DUENAS	ARC	K M FORD	NCC 2 1191	181
22	UNIV OF WEST FLORIDA	M H SHIRLEY	ARC	N SURI	NCC 2 1016	181
22	UNIV OF WISCONSIN - MADISON	C H SCHULBACH	ARC	B P MILLER	NGT 2 52227	537
22	UNIV OF WISCONSIN - MADISON	F THEO	MSFC	J SANTARIUS	NAG 8 1719	535
22	UNIV OF WISCONSIN - MADISON	J BREDEKAMP	GSFC	D T SANDERS	NAG 5 3943	531
22	UNIV OF WISCONSIN - MADISON	M GERALD-YAMASAKI	ARC	P CAO	NCC 2 5260	536
22	UNIV OF WISCONSIN - MADISON	W E JOHNSTON	ARC	M LIVNY	NCC 2 5323	536
22	UNIV OF WYOMING	D G SICKOREZ	JSC	R	NGT 9 36	539
22	UNIV OF WYOMING	S LAU	ARC	J V BALLEN	NAG 2 877	538
22	VA POLYTECH INST & ST UNIV	J M SEATON	LARC	G J OGLE	NGT 1 52224	515
22	VALENCIA COMM COLLEGE	G BUCKINGHAM	KSC	K WOODBERRY	NAG10 185	181
22	WEST VIRGINIA UNIV	M R LOWRY	ARC	J R CALLAHAN	NAG 2 1134	527
22	WINSTON-SALEM STATE UNIV	G FOLLEN	GRC	A RADENSKI	NAG 3 2011	396
22	WRIGHT STATE UNIV	W J CLANCEY	ARC	V L SHALIN	NAG 2 1237	417
22	WRIGHT STATE UNIV	W J CLANCEY	ARC	V L SHALIN	NCC 2 1203	417
29	ALABAMA A&M UNIV	R TILLEY	KSC	M ELSHAMY	NAG10 245	2
29	ARIZONA STATE UNIV	P W GOODE	LARC	M P MIGNOLET	NAG 1 2233	22
29	BROWN UNIV	H L ATKINS	LARC	J RYAN	NGT 1 52243	447
29	CARNEGIE - MELLON UNIV	C H SCHULBACH	ARC	T C MOWRY	NAG 2 1230	424
29	CASE WESTERN RESERVE UNIV	C R MERCER	GRC	S H IZEN	NAG 3 2210	398
29	CHRISTOPHER NEWPORT UNIV	D M BUSHNELL	LARC	P DOMINQUZE	NAG 1 2210	493
29	CITY UNIV	D CENTENO-GOMEZ	GRC	G MELENDEZ-DELANEY	NAG 3 2057	359

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29	COLLEGE OF WILLIAM AND MARY	P C SCHUTTE	LARC	S FEYOCK	NAG 1 2271	494
29	DINE COLLEGE	L ARMENDARIZ	JSC	M C BAUER	NAG 9 968	26
29	DREXEL UNIV	J R FISCHER	GSFC	B FRYXELL	NAG 5 6029	428
29	FAYETTEVILLE STATE UNIV	R F LAWRENCE	GRC	L EDWARDS	NAG 3 2072	389
29	FLA INTERNATIONAL UNIV	R J MCKINNEY	KSC	G A ROIG	NAG10 268	164
29	FLORIDA A&M UNIV	T GUO	GRC	E G COLLINS	NAG 3 2193	165
29	FLORIDA MEMORIAL COLLEGE	R MC KINNEY	KSC	H HUISSO	NAG10 247	168
29	GEORGE WASHINGTON UNIV	G D BLANEY	ARC	M KRUPSAW	NGT 2 52223	155
29	GEORGE WASHINGTON UNIV	G D BLANEY	ARC	M KRUPSAW	NGT 2 52263	156
29	GEORGIA INST OF TECH	P W GOODE	LARC	A J CALISE	NAG 1 2243	184
29	HOWARD UNIV	R M BUTTON	GRC	D A MOMOH	NAG 3 2429	156
29	JOHNS HOPKINS UNIV	J BREDEKAMP	GSFC	G MURPHY	NAG 5 8548	246
29	JOHNS HOPKINS UNIV	J R FISCHER	GSFC	P OLSON	NCC 5 147	250
29	JOHNSON C	J R SCOTT	GRC	J O ADEYEYE	NAG 3 2022	389
29	KENT STATE UNIV	L SHAW	GRC	S RYAN	NGT 3 52309	404
29	MASSACHUSETTS INST OF TECH	D R ISSACSON	ARC	A R ODONI	NAG 2 1128	283
29	MASSACHUSETTS INST OF TECH	J L THOMAS	LARC	D L DARMOFAL	NAS 1 99126	294
29	MONTANA TECH OF THE UNIV OF MONTANA	F SIX	MSFC	T MOON	NAG 8 1098	332
29	MORGAN STATE UNIV	B MOTT	GSFC	D WHITE	NAG 5 7623	250
29	NEW JERSEY INST OF TECH	J LITT	GRC	D P DHAWAN	NAG 3 2475	343
29	NORTH CAROLINA A&T STATE UNIV	G S LEE	ARC	A C ESTERLINE	NAG 2 1150	390
29	OHIO UNIV	J M SEATON	LARC	R L WILLIAMS	NAG 1 2299	409
29	OLD DOMINION UNIV	F FARASSAT	LARC	J TWEED	NAG 1 1940	501
29	PENN STATE UNIV	E L DUKE	DFRC	B GRABOWSKI	NAG 4 113	431
29	RICE UNIV	L L GREEN	LARC	A CARLE	NCC 1 234	465
29	SAVANNAH STATE UNIV	R M C KINNEY	KSC	T EATON	NAG10 250	190
29	SOUTHERN UNIV & A&M COLLEGE	G JERMAN	MSFC	J DYER	NCC 8 156	236
29	TEMPLE UNIV	B C DRAKE	GSFC	S K BISWAS	NAG 5 8649	440
29	THE UNIV OF CENTRAL FLORIDA	C M CLESKEY	KSC	R HOFER	NCA10 35	172
29	UNIV OF MINN	A NURRIDIN	HQ	L RUDNICK	NGT 5 50123	320
29	UNIV OF AKRON	J R SCOTT	GRC	D I HAIHARAN	NAG 3 2182	410
29	UNIV OF ALABAMA - HUNTSVILLE	F MAYHALL	MSFC	W MORSE	NCC 8 178	15
29	UNIV OF CALIFORNIA - BERKELEY	J BREDEKAMP	GSFC	D L BUZASI	NAG 5 8489	76
29	UNIV OF CALIFORNIA - DAVIS	J FLORES	ARC	J J CHATTOT	NGT 2 52241	86
29	UNIV OF CALIFORNIA - LOS ANGELES	J R FISCHER	GSFC	C MECHOSO	NCC 5 149	98
29	UNIV OF CALIFORNIA - SAN DIEGO	A POHORILLE	ARC	V GALINSKY	NCC 2 5302	108
29	UNIV OF CHICAGO	J R FISCHER	GSFC	A MALAGOLI	NCC 5 151	208
29	UNIV OF DAYTON	W D MORRIS	LARC	C E EBELING	NAS 1 99148	414
29	UNIV OF HOUSTON - CLEAR LAKE	JARRELL	JSC	R S CHHIKARA	NCC 9 76	476
29	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J R FISCHER	GSFC	P SAYLOR	NCC 5 153	214
29	UNIV OF MARYLAND - COLLEGE PARK	J R FISCHER	GSFC	P LYSER	NCC 5 150	267
29	UNIV OF MICHIGAN - ANN ARBOR	J R FISCHER	GSFC	T GOMBOSI	NCC 5 146	313
29	UNIV OF MICHIGAN - ANN ARBOR	M J AFTOSMIS	ARC	K G POWELL	NGT 2 52249	313
29	UNIV OF NEW HAMPSHIRE - DURHAM	M MAIDEN	GSFC	B MOORE	NCC 5 304	342
29	UNIV OF PITTSBURGH	G ASRAR	GSFC	D TIPPER	NGT 5 30019	443
29	UNIV OF TEXAS - AUSTIN	E L CHRISTIANSEN	JSC	E P FAHRENTHOLD	NCC 9 73	483
29	UNIV OF TEXAS - AUSTIN	J R FISCHER	GSFC	G CAREY	NCC 5 154	483
29	UNIV OF TOLEDO	J LITT	GRC	A P DHAWAN	NAG 3 2282	414
29	UNIV OF VIRGINIA	P W GOODE	LARC	C R ELKS	NGT 1 52237	511
29	WASHINGTON STATE UNIV	B A BIEGEL	ARC	M A OSMAN	NCC 2 5346	526
29	WEST VIRGINIA UNIV	D S OSBURN	ARC	A C COGLEY	NCC 2 979	527
29	WINONA STATE UNIV	R P HEYDORN	JSC	R D JARVINEN	NCC 9 67	321
31	ALABAMA A&M UNIV	R ARNOLD	MSFC	T L COLEMAN	NCC 8 140	2
31	BOSTON UNIV	B SINGH	GRC	A NADIM	NAG 3 1844	272
31	BOSTON UNIV	C S POTTER	ARC	R B MYNENI	NAG 2 1432	272
31	BOSTON UNIV	D TOLL	GSFC	R B MYNENI	NAS 5 96061	276
31	BOSTON UNIV	H OSEROFF	GSFC	W STRAHLER	NAS 5 31369	276
31	BOSTON UNIV	J ARNOLD	MSFC	G D SALVUCCI	NAG 8 1522	276
31	BOSTON UNIV	J BERGSTRALH	GSFC	D V YELLE	NAG 5 4426	273
31	BRIGHAM YOUNG UNIV	R J LAWRENCE	GSFC	D G LONG	NAG 5 9638	488
31	BROWN UNIV	R MCKELLIP	SSC	MUSTARD	NAG13 39	446
31	CALIFORNIA INST OF TECH	C H JACKMAN	GSFC	H ZIRIN	NAG 5 2782	43
31	CALIFORNIA INST OF TECH	E HILSENATH	GSFC	Y L YUNG	NAG 5 7230	47
31	CALIFORNIA INST OF TECH	G L MADDREA	LARC	Y L YUNG	NAG 1 1806	42
31	CALIFORNIA INST OF TECH	G L MADDREA	LARC	Y L YUNG	NAG 1 2151	43
31	CALIFORNIA INST OF TECH	H HASAN	GSFC	D P INGERSOLL	NAG 5 4191	44

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31	CALIFORNIA INST OF TECH	J BERGSTRAHL	GSFC	D L YUNG	NAG 5 6263	46
31	CALIFORNIA INST OF TECH	M CHOU	GSFC	Y L YUNG	NAG 5 7680	47
31	CALIFORNIA INST OF TECH	M J KURYLO	GSFC	D OKUMURA	NAG 5 3911	44
31	CALIFORNIA INST OF TECH	P DECOLA	GSFC	P WENNBURG	NAG 5 7527	47
31	CALIFORNIA INST OF TECH	R LAWRENCE	GSFC	D O WENNBURG	NAG 5 9307	48
31	CARNEGIE - MELLON UNIV	J BREDEKAMP	GSFC	A F PTAK	NAG 5 8093	425
31	CHRISTOPHER NEWPORT UNIV	G W SACHSE	LARC	A M BUONCRISTIANI	NCC 1 204	493
31	CHRISTOPHER NEWPORT UNIV	G W SOCHSE	LARC	N POUATCHER	NCC 1 318	493
31	CITY UNIV OF NY CITY COLLEGE	L TRAVIS	GSFC	N A PARKER	NCC 5 343	361
31	CITY UNIV OF NY CITY COLLEGE	O W THIELE	GSFC	S GEDZELMAN	NAG 5 7827	360
31	CITY UNIV OF NY CITY COLLEGE	S GLICKER	GSFC	D AKINS	NAG 5 4019	360
31	CITY UNIV OF NY SYSTEM	B E CARLSON	GSFC	N A PARKER	NCC 5 129	361
31	CITY UNIV OF NY SYSTEM	J SIMMONDS	MSFC	W J PIERSON	NAG 8 1423	361
31	CLEMSON UNIV - CLEMSON	J BOYCE	GSFC	D CLAYTON	NAG 5 8304	449
31	CLEMSON UNIV - CLEMSON	O W THIELE	GSFC	C W ULBRICH	NAG 5 7782	449
31	COLORADO STATE UNIV	A J NEGRI	GSFC	G L STEPHENS	NCC 5 288	125
31	COLORADO STATE UNIV	B A WIELICKI	LARC	D A RANDALL	NAG 1 1266	123
31	COLORADO STATE UNIV	B A WIELICKI	LARC	D A	NAS 1 98125	125
31	COLORADO STATE UNIV	D LEWIS	GSFC	G STEPHENS	NAS 5 99237	125
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	D A RANDALL	NAG 1 2081	123
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	D C ROGERS	NAG 1 2063	123
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	S K COX	NAG 1 2080	123
31	COLORADO STATE UNIV	D S MCDUGAL	LARC	W COTTON	NAG 1 2045	123
31	COLORADO STATE UNIV	G ASRAR	GSFC	S KREIDENWEIS	NGT 5 30001	125
31	COLORADO STATE UNIV	G GIBSON	LARC	G L STEPHENS	NAS 1 99103	125
31	COLORADO STATE UNIV	G L MADDREA	LARC	D RANDALL	NAS 1 19951	125
31	COLORADO STATE UNIV	J ARNOLD	MSFC	R A PIELKE	NAG 8 1511	124
31	COLORADO STATE UNIV	J C DODGE	GSFC	G L STEPHENS	NAG 5 3449	123
31	COLORADO STATE UNIV	M MISHCHENKO	GSFC	S M KREIDENWEIS	NAG 5 7783	124
31	COLORADO STATE UNIV	O THIELE	GSFC	D RANDALL	NAG 5 4749	123
31	COLORADO STATE UNIV	O W THIELE	GSFC	G L STEPHENS	NAG 5 7719	124
31	COLORADO STATE UNIV	O W THIELE	GSFC	V CHANDRASEKAR	NAG 5 7876	124
31	COLORADO STATE UNIV	O W THIELE	GSFC	V N BRINGI	NAG 5 7717	124
31	COLORADO STATE UNIV	P SELLERS	GSFC	D RANDALL	NAS 5 31730	125
31	COLORADO STATE UNIV	R A ALDER	GSFC	S A RUTLEDGE	NAG 5 4754	123
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	D A RANDALL	NAG 5 9647	124
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	R H JOHNSON	NAG 5 9685	124
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	S A RUTLEDGE	NAG 5 9642	124
31	COLORADO STATE UNIV	R J LAWRENCE	GSFC	V CHANDRASEKAR	NAG 5 9655	124
31	COLORADO STATE UNIV	R LAWRENCE	GSFC	D J DEMOTT	NAG 5 9308	124
31	COLORADO STATE UNIV	T MILLER	MSFC	S Q KIDDER	NAS 8 97082	125
31	COLORADO STATE UNIV	V DELNORE	LARC	G STEPHENS	NAG 1 2247	123
31	COLUMBIA UNIV	A LACIS	GSFC	L DRUYAN	NCC 5 473	367
31	COLUMBIA UNIV	A LACIS	GSFC	L M DRUYAN	NCC 5 270	367
31	COLUMBIA UNIV	B CARLSON	GSFC	C HARRIS	NCC 5 470	367
31	COLUMBIA UNIV	D RIND	GSFC	I TEGEN	NAG 5 4052	362
31	COLUMBIA UNIV	D RIND	GSFC	M A CHANDLER	NCC 5 328	367
31	COLUMBIA UNIV	D RIND	GSFC	M CHANDLER	NCC 5 505	367
31	COLUMBIA UNIV	M I MISHCHENKO	GSFC	G KUKLA	NAG 5 7687	364
31	COLUMBIA UNIV	M KHAZENIE	GSFC	W BROECKER	NAG 5 6294	363
31	COLUMBIA UNIV	M S BURRELL	GSFC	A D DELGENIO	NGT 5 44	367
31	COLUMBIA UNIV	R B STOTHERS	GSFC	C K CHU	NCC 5 271	367
31	COLUMBIA UNIV	R B STOTHERS	GSFC	C K CHU	NCC 5 485	367
31	COLUMBIA UNIV	R BEEBEE	GSFC	D BERSOHN	NAG 5 4971	362
31	COLUMBIA UNIV	R STOTHERS	GSFC	L POLVANI	NCC 5 278	367
31	COLUMBIA UNIV	R STOTHERS	GSFC	L POLVANI	NCC 5 469	367
31	COLUMBIA UNIV	R W STEWART	GSFC	A MACKIE	NAG 5 8240	363
31	COLUMBIA UNIV	R W STEWART	GSFC	T HALL	NAG 5 7138	364
31	CONCORDIA COLLEGE IN MOORHEAD	P R MAHAFFY	GSFC	H L MANNING	NAG 5 8626	315
31	CORNELL UNIV	G ASRAR	GSFC	L O HEDIN	NGT 5 30038	375
31	CORNELL UNIV	J ARNOLD	MSFC	W BRUTSAERT	NAG 8 1518	373
31	CORNELL UNIV	M S BURRELL	GSFC	B L ISACKS	NGT 5 51	375
31	DENISON UNIV	R BEEBE	GSFC	D E MICKELSON	NAG 5 4341	404
31	DREXEL UNIV	E HILSENATH	GSFC	D R BROOKS	NAG 5 8929	428
31	DREXEL UNIV	J L RAPER, SR.	LARC	A R BANDY	NCC 1 409	428
31	DREXEL UNIV	J L ROPER	LARC	A R BANDY	NCC 1 297	428

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31	DUKE UNIV	J A KAYE	GSFC	P KASIBHATLA	NAG 5 7155	387
31	DUKE UNIV	R ROOD	GSFC	P KABIBHATLA	NAG 5 3665	387
31	FLORIDA A&M UNIV	R LEE	KSC	F B GROSS	NAG10 264	166
31	FLORIDA STATE UNIV	A J KRUEGER	GSFC	X ZOU	NAG 5 9410	170
31	FLORIDA STATE UNIV	A J NEGRI	GSFC	E A SMITH	NAG 5 4752	169
31	FLORIDA STATE UNIV	D FITZJARRALD	MSFC	T N KRISHNAMURTI	NAG 8 1199	170
31	FLORIDA STATE UNIV	E P CONDON	ARC	H E FUELBERG	NAG 2 1098	168
31	FLORIDA STATE UNIV	J ARNOLD	MSFC	J J O	NCC 8 158	171
31	FLORIDA STATE UNIV	J ARNOLD	MSFC	T N KRISHNAMURTI	NAG 8 1537	170
31	FLORIDA STATE UNIV	J L RAPER, SR.	LARC	H E FUELBERG	NCC 1 412	170
31	FLORIDA STATE UNIV	J M HOELL, JR.	LARC	H E FUELBERG	NCC 1 308	170
31	FLORIDA STATE UNIV	J M HOELL, JR.	LARC	T N KRISHNAMURTI	NAG 1 1771	168
31	FLORIDA STATE UNIV	J R RAPER	LARC	T N KRISHNAURTI	NAG 1 2127	168
31	FLORIDA STATE UNIV	M HALL	GSFC	I NAVON	NAG 5 4873	169
31	FLORIDA STATE UNIV	O W THIELE	GSFC	S E NICHOLSON	NAG 5 7718	169
31	FLORIDA STATE UNIV	O W THIELE	GSFC	T N KRISHNAMURTI	NAG 5 4729	169
31	FLORIDA STATE UNIV	R J LAWRENCE	GSFC	E A SMITH	NAG 5 10001	170
31	FLORIDA STATE UNIV	R J LAWRENCE	GSFC	T N KRISHNAMURTI	NAG 5 9662	170
31	FLORIDA STATE UNIV	W B ROSSOW	GSFC	G LIU	NAG 5 8647	170
31	GEORGE MASON UNIV	G MADDREA	LARC	M SUMMERS	NAG 1 2316	495
31	GEORGE MASON UNIV	L REMER	GSFC	J RAMAPRASAD	NAG 5 7775	495
31	GEORGE WASHINGTON UNIV	R J LAWRENCE	GSFC	R H LANG	NAG 5 9550	154
31	GEORGE WASHINGTON UNIV	S HOWARD	GSFC	D M KEATING	NAG 5 6081	154
31	GEORGETOWN UNIV	G ASRAR	GSFC	J M HICKS	NGT 5 30043	156
31	GEORGIA INST OF TECH	E P CONDON	ARC	S C LIU	NAG 2 1103	184
31	GEORGIA INST OF TECH	G L MADDREA	LARC	D M CUNNOLD	NAG 1 2202	183
31	GEORGIA INST OF TECH	G L MADDREA	LARC	D M CUNNOLD	NAS 1 18938	186
31	GEORGIA INST OF TECH	J BERGSTRAHL	GSFC	D G STEFFES	NAG 5 4190	185
31	GEORGIA INST OF TECH	J L ROPER	LARC	F L EISELE	NCC 1 301	186
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	D D DAVIS	NAG 1 1769	183
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	D D DAVIS	NCC 1 306	186
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	D L EISELE	NAG 1 1766	183
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	S LIU	NAG 1 1822	183
31	GEORGIA INST OF TECH	J M HOELL	LARC	J P BRADSHAW	NAG 1 1904	183
31	GEORGIA INST OF TECH	J M HOELL	LARC	S C LIU	NCC 1 317	186
31	GEORGIA INST OF TECH	J M HOELL, JR.	LARC	S T SANDHOLM	NCC 1 296	186
31	GEORGIA INST OF TECH	M J KURYLO	GSFC	P H WINE	NAG 5 3634	185
31	GEORGIA INST OF TECH	S SCHUBERG	GSFC	R X BLACK	NAG 5 7471	185
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31	HAMPTON UNIV	J FISHMAN	LARC	T H CHYBA	NAG 1 1949	497
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31	HAMPTON UNIV	L R POOLE	LARC	M P MCCORMICK	NAG 1 1947	497
31	HAMPTON UNIV	M I MISHCHENKO	GSFC	M MCCORMICK	NAG 5 8648	498
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31	UNIV OF MICHIGAN - ANN ARBOR	C H JACKMAN	GSFC	W SKINNER	NAG 5 7474	309
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31	UNIV OF MICHIGAN - ANN ARBOR	G L MADDREA	LARC	J E PENNER	NAG 1 2042	305
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31	UNIV OF MICHIGAN - ANN ARBOR	J L RAPER	LARC	A CARROLL	NAG 1 1755	305
31	UNIV OF MICHIGAN - ANN ARBOR	J RICHARDS	GSFC	G ARIGNAN	NAS 5 99174	312
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31	UNIV OF WISCONSIN - MADISON	A ROYAL	LARC	F A BEST	NAS 1 00070	535
31	UNIV OF WISCONSIN - MADISON	D S MCDUGAL	LARC	D WYLIE	NAG 1 1830	529
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31	UNIV OF WISCONSIN - MADISON	G L MADDREA	LARC	M H HITCHMAN	NAS 1 98030	535
31	UNIV OF WISCONSIN - MADISON	G SMITH	GSFC	C BENTLEY	NAS 5 99004	536
31	UNIV OF WISCONSIN - MADISON	J A GREEN	LARC	S ACKERMAN	NAG 1 2322	529
31	UNIV OF WISCONSIN - MADISON	J D SPINKIRNE	GSFC	E W ELORANTA	NAG 5 7572	532
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31	UTAH STATE UNIV	V S PARSONS	LARC	G E BINGHAM	NAS 1 99116	491
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32	ARIZONA STATE UNIV	G ASRAR	GSFC	S WILLIAMS	NGT 5 30007	25
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32	MASSACHUSETTS INST OF TECH	H BRINTON	GSFC	D R ZUBER	NAG 5 4555	287
32	MASSACHUSETTS INST OF TECH	H FREY	GSFC	P MOLNAR	NAG 5 4807	287
32	MASSACHUSETTS INST OF TECH	H V FREY	GSFC	A E NIELL	NAG 5 6063	287
32	MASSACHUSETTS INST OF TECH	H V FREY	GSFC	B C FIELD	NAG 5 6062	287
32	MASSACHUSETTS INST OF TECH	H V FREY	GSFC	M T ZURBER	NAG 5 9143	292
32	MASSACHUSETTS INST OF TECH	H V FREY	GSFC	R E REILINGER	NAG 5 6145	288
32	MASSACHUSETTS INST OF TECH	H V FREY	GSFC	R E REILINGER	NAG 5 9057	291
32	MASSACHUSETTS INST OF TECH	J G GRANT	GSFC	D G FORD	NAG 5 4047	286
32	MASSACHUSETTS INST OF TECH	P G ROGERS	GSFC	J WISDOM	NAG 5 3915	286
32	MASSACHUSETTS INST OF TECH	P TAYLOR	GSFC	T A HERRING	NAG 5 3550	285
32	MASSACHUSETTS INST OF TECH	W WILDES	GSFC	A NEILL	NAG 5 32353	294

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32	MICHIGAN TECHNOLOGICAL UNIV	H V FREY	GSFC	G J BLUTH	NAG 5 7576	305
32	MICHIGAN TECHNOLOGICAL UNIV	M S BURRELL	GSFC	W I ROSE	NGT 5 76	305
32	MIDDLE TENNESSEE STATE UNIV	D SIX	MSFC	D HEFFINGTON	NAG 8 1211	454
32	NEW MEXICO STATE UNIV - LAS CRUCES	P ROGERS	GSFC	V SOLOMATOV	NAG 5 6897	355
32	NORTHERN ARIZONA UNIV	P ROGERS	GSFC	D K LJCCCHITTA	NAG 5 4942	26
32	NORTHWESTERN UNIV	P ROGERS	GSFC	D S ROBINSON	NAG 5 4354	202
32	OHIO STATE UNIV	B DAVIS	SSC	K BOYER	NAG13 00039	408
32	OHIO STATE UNIV	H CARR	SSC	J D BOSSLER	NAG13 42	408
32	OHIO STATE UNIV	H V FREY	GSFC	C K SHUM	NAG 5 7574	407
32	OHIO STATE UNIV	P TAYLOR	GSFC	R VON FRESE	NAG 5 2996	406
32	OHIO STATE UNIV	S H GOGINENI	GSFC	T J WILSON	NAG 5 4250	406
32	PENN STATE UNIV	E T ENGMAN	GSFC	J L EVANS	NAG 5 7547	434
32	PENN STATE UNIV	H FREY	GSFC	D BURBANK	NAG 5 7646	434
32	PENN STATE UNIV	H FREY	GSFC	S FELDSTEIN	NAG 5 6207	433
32	PENN STATE UNIV	H V FREY	GSFC	D W BURBANK	NAG 5 9039	435
32	POMONA COLLEGE	J BOYCE	GSFC	E GROSFILS	NAG 5 9618	56
32	PRINCETON UNIV	E T ENGMAN	GSFC	J A SMITH	NAG 5 7544	346
32	PRINCETON UNIV	H V FREY	GSFC	E WOOD	NAG 5 6511	345
32	PURDUE UNIV	J ARNOLD	MSFC	R OGLESBY	NAG 8 1515	219
32	RENSSELAER POLYTECH INST	P G ROGERS	GSFC	M J GAFFEY	NAG 5 3725	378
32	RUTGERS STATE UNIV - PISCATAWAY	E T ENGMAN	GSFC	D ROBINSON	NAG 5 7564	350
32	SAN DIEGO STATE UNIV	H CARR	SSC	D HERGERT	NCC13 16	56
32	SAN JOSE STATE UNIV	J GRANT	GSFC	D A MAROUF	NAG 5 4372	57
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	H V FREY	GSFC	D RAVAT	NAG 5 7662	204
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	P T TAYLOR	GSFC	D RAVAT	NAG 5 7771	204
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	P TAYLOR	GSFC	D RAVAT	NAG 5 9832	204
32	SOUTHERN ILLINOIS UNIV - CARBONDALE	R A LANGE	GSFC	D RAVAT	NAG 5 3120	204
32	SOUTHERN METHODIST UNIV	J A GRANT	GSFC	V L HANSEN	NAG 5 9142	466
32	SOUTHERN METHODIST UNIV	P ROGERS	GSFC	D L HANSEN	NAG 5 4562	466
32	SOUTHERN METHODIST UNIV	P ROGERS	GSFC	D L HANSEN	NAG 5 4609	466
32	STANFORD UNIV	D J DES MARAIS	ARC	D R LOWE	NCC 2 721	66
32	STANFORD UNIV	H V FREY	GSFC	H A ZEBKER	NAG 5 6148	63
32	STANFORD UNIV	H V FREY	GSFC	H A ZEBKER	NAG 5 9040	65
32	STANFORD UNIV	H V FREY	GSFC	H ZEBKER	NAG 5 3441	62
32	STANFORD UNIV	H V FREY	GSFC	P SEGALL	NAG 5 6167	63
32	STANFORD UNIV	P G ROGERS	GSFC	G TYLER	NAG 5 3906	62
32	STATE UNIV OF NY - ALBANY	H V FREY	GSFC	H MASSONE	NAG 5 9690	380
32	STATE UNIV OF NY - BUFFALO	B CAMPBELL	GSFC	D GRANT	NAG 5 4569	381
32	STATE UNIV OF NY - BUFFALO	H V FREY	GSFC	M BARSIK	NAG 5 3142	381
32	STATE UNIV OF NY - STONY BROOK	H V FREY	GSFC	W E HOLT	NAG 5 9053	383
32	STATE UNIV OF NY COL - PURCHASE	P ROGER	GSFC	D GRANT	NAG 5 4157	384
32	STATE UNIV OF NY COL	H V FREY	GSFC	M BURSİK	NAG 5 7581	385
32	STATE UNIV OF NY COL	H V FREY	GSFC	M F SHERIDAN	NAG 5 7579	385
32	STATE UNIV OF NY COL	J G GRANT	GSFC	GREGG	NAG 5 4544	384
32	THE AMERICAN UNIV	G A SOFFEN	GSFC	R B KAY	NGT 5 50003	158
32	THE UNIV OF CENTRAL FLORIDA	J QUINN	KSC	C GEIGER	NAG10 215	172
32	UNIV OF MINN	C HILL	SSC	M E BAUER	NAG13 99002	319
32	UNIV OF MINN	E T ENGMAN	GSFC	M PERSON	NAG 5 7599	317
32	UNIV OF MINN	J ARNOLD	MSFC	E FOULOUA-GEORGIOU	NAG 8 1519	318
32	UNIV OF MINN	M MELLOTT	GSFC	R LYSAK	NAG 5 9254	318
32	UNIV OF MINN	P ROGERS	GSFC	D L KOHLSTEDT	NAG 5 6797	317
32	UNIV OF TEXAS-PAN AMERICAN	L M ARMEDARIZ	JSC	E LEMASTER	NAG 9 857	474
32	UNIV NACINL DE SN AGUSTIN-AREQUIPA	D L CARTER	GSFC	N APPLICABLE	NAG 5 99121	542
32	UNIV OF ALABAMA - HUNTSVILLE	H V FREY	GSFC	J F CRUISE	NAG 5 9049	12
32	UNIV OF ALABAMA - HUNTSVILLE	M MELLOTT	GSFC	P RICHARDS	NAG 5 9200	13
32	UNIV OF ALASKA - FAIRBANKS	H V FREY	GSFC	J T FREYMUELLER	NAG 5 7659	20
32	UNIV OF ARIZONA	D BOGAN	GSFC	J I LUNINE	NAG 5 8949	35
32	UNIV OF ARIZONA	E ENGMAN	GSFC	W SHUTTLEWORTH	NAG 5 7554	32
32	UNIV OF ARIZONA	G A SOFFEN	GSFC	A S MCEWEN	NGT 5 110	40
32	UNIV OF ARIZONA	H V FREY	GSFC	V R BAKER	NAG 5 9293	36
32	UNIV OF ARIZONA	J GRANT	GSFC	J I LUNINE	NAG 5 8988	35
32	UNIV OF ARIZONA	J GRANT	GSFC	L KESZTHELYI	NAG 5 9176	36
32	UNIV OF ARIZONA	P G ROGERS	GSFC	A MCEWEN	NAG 5 3632	28
32	UNIV OF ARIZONA	P G ROGERS	GSFC	J I LUNINE	NAG 5 4051	29
32	UNIV OF ARIZONA	P G ROGERS	GSFC	R G STROM	NAG 5 3914	29

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32	UNIV OF ARIZONA	P G ROGERS	GSFC	V R BAKER	NAG 5 3630	28
32	UNIV OF ARIZONA	P ROGERS	GSFC	D C PORCO	NAG 5 4451	30
32	UNIV OF ARIZONA	P ROGERS	GSFC	D H BROWN	NAG 5 3796	28
32	UNIV OF ARIZONA	P ROGERS	GSFC	D H LEVY	NAG 5 6663	31
32	UNIV OF ARIZONA	P ROGERS	GSFC	H MELOSH	NAG 5 6543	31
32	UNIV OF ARIZONA	P ROGERS	GSFC	L KESZTHELYI	NAG 5 7022	31
32	UNIV OF ARIZONA	T MORGAN	GSFC	R S MCMILLAN	NAG 5 6611	31
32	UNIV OF CALIFORNIA - BERKELEY	H V FREY	GSFC	R BURGMANN	NAG 5 7580	75
32	UNIV OF CALIFORNIA - BERKELEY	H V FREY	GSFC	W E DIETRICH	NAG 5 9629	78
32	UNIV OF CALIFORNIA - BERKELEY	P TAYLOR	GSFC	M RICHARDS	NAG 5 9864	78
32	UNIV OF CALIFORNIA - DAVIS	H V FREY	GSFC	J MINSTER	NAG 5 3001	83
32	UNIV OF CALIFORNIA - DAVIS	R MCKELLIP	SSC	D W TATE	NAG13 99023	84
32	UNIV OF CALIFORNIA - LOS ANGELES	E T ENGMAN	GSFC	L C SMITH	NAG 5 7555	94
32	UNIV OF CALIFORNIA - LOS ANGELES	E T ENGMAN	GSFC	Y XUE	NAG 5 9014	96
32	UNIV OF CALIFORNIA - LOS ANGELES	J SHARBER	GSFC	M EL-ALAOUI	NAG 5 9255	96
32	UNIV OF CALIFORNIA - LOS ANGELES	M MEYER	GSFC	D F KERRIDGE	NAG 5 8470	95
32	UNIV OF CALIFORNIA - LOS ANGELES	P G ROGERS	GSFC	G SCHUBERT	NAG 5 3863	92
32	UNIV OF CALIFORNIA - LOS ANGELES	P G ROGERS	GSFC	W M KAULA	NAG 5 3956	92
32	UNIV OF CALIFORNIA - LOS ANGELES	P ROGERS	GSFC	D A PAIGE	NAG 5 4449	92
32	UNIV OF CALIFORNIA - SAN DIEGO	B A WIELICKI	LARC	V RAMANATHAN	NAG 1 1259	99
32	UNIV OF CALIFORNIA - SAN DIEGO	B CAMPBELL	GSFC	P L BADA	NAG 5 4938	102
32	UNIV OF CALIFORNIA - SAN DIEGO	H B FREY	GSFC	R L PARKER	NAG 5 7612	104
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	C G CONSTABLE	NAG 5 7614	104
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	D C AGNEW	NAG 5 6149	102
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	D C AGNEW	NCC 5 230	109
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	D T SANDWELL	NAG 5 5176	102
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	D T SANDWELL	NAG 5 9623	106
32	UNIV OF CALIFORNIA - SAN DIEGO	H V FREY	GSFC	J B RAND	NAG 5 6150	102
32	UNIV OF CALIFORNIA - SAN DIEGO	P T TAYLOR	GSFC	G E BACKUS	NAG 5 2967	100
32	UNIV OF CALIFORNIA - SAN DIEGO	P TAYLOR	GSFC	C CONSTABLE	NAG 5 2968	100
32	UNIV OF CALIFORNIA - SANTA BARBARA	H V FREY	GSFC	D E ALSDORF	NAG 5 9055	113
32	UNIV OF CALIFORNIA - SANTA BARBARA	H V FREY	GSFC	L K MERTES	NAG 5 9811	113
32	UNIV OF CALIFORNIA - SANTA BARBARA	H V FREY	GSFC	O A CHADWICK	NAG 5 3024	111
32	UNIV OF CALIFORNIA - SANTA BARBARA	J G GRANT	GSFC	S J PEALE	NAG 5 3648	111
32	UNIV OF CALIFORNIA - SANTA BARBARA	M MEYER	GSFC	D M AWRAMIK	NAG 5 4480	111
32	UNIV OF CALIFORNIA - SANTA BARBARA	R MCKELLIP	JSC	O CHADWICK	NAG13 99025	114
32	UNIV OF CALIFORNIA - SANTA CRUZ	H V FREY	GSFC	R ANDERSON	NAG 5 3005	116
32	UNIV OF CALIFORNIA - SANTA CRUZ	J A GRANT	GSFC	E ASPHAUG	NAG 5 9391	117
32	UNIV OF CHARLESTON -WEST VIRGINIA	D A MORRISON	JSC	C COOMBS	NGT 9 24	527
32	UNIV OF COLORADO - BOULDER	A T CHANG	GSFC	R L ARMSTRONG	NAG 5 4506	130
32	UNIV OF COLORADO - BOULDER	E T ENGMAN	GSFC	A FREI	NAG 5 7543	135
32	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	J B RUNDLE	NGT 5 30025	143
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	J B RUNDLE	NAG 5 5168	131
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	J B RUNDLE	NAG 5 9448	139
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	J M WAHR	NAG 5 7703	136
32	UNIV OF COLORADO - BOULDER	H V FREY	GSFC	K M LARSON	NAG 5 6147	132
32	UNIV OF COLORADO - BOULDER	J A GRANT	GSFC	R E GRIMM	NAG 5 9491	139
32	UNIV OF COLORADO - BOULDER	J BOYCE	GSFC	A R HENDRIX	NAG 5 9590	140
32	UNIV OF COLORADO - BOULDER	J GRANT	GSFC	M T MELLON	NAG 5 8910	138
32	UNIV OF COLORADO - BOULDER	J SCHARBER	GSFC	S SOLOMON	NAG 5 9201	139
32	UNIV OF COLORADO - BOULDER	J SHARBER	GSFC	M HORANYI	NAG 5 9172	139
32	UNIV OF COLORADO - BOULDER	P G ROGERS	GSFC	B M JAKOSKY	NAG 5 3763	129
32	UNIV OF COLORADO - BOULDER	P ROGERS	GSFC	D R STEWART	NAG 5 4163	129
32	UNIV OF COLORADO - BOULDER	P ROGERS	GSFC	M T MELLON	NAG 5 7071	134
32	UNIV OF COLORADO - BOULDER	P T TAYLOR	GSFC	J WAHR	NAG 5 3143	128
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32	UNIV OF FLORIDA	P ROGERS	HQ	D F DERMOTT	NAG 5 4531	175
32	UNIV OF GEORGIA	E T ENGMAN	GSFC	T L MOTE	NAG 5 8489	192
32	UNIV OF HAWAII AT MANOA - HONOLULU	H F FREY	GSFC	P J MOUGINIS-MARK	NAG 5 3000	193
32	UNIV OF HAWAII AT MANOA - HONOLULU	H V FREY	GSFC	P J MOUGINIS-MARK	NAG 5 7578	195
32	UNIV OF HAWAII AT MANOA - HONOLULU	H V FREY	GSFC	P J MOUGINIS-MARK	NAG 5 9038	197
32	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	E R HAWKE	NAG 5 3875	194
32	UNIV OF HAWAII AT MANOA - HONOLULU	J GRANT	GSFC	B HAWKE	NAG 5 8903	197
32	UNIV OF HAWAII AT MANOA - HONOLULU	J GRANT	GSFC	S K ROWLAND	NAG 5 7963	196
32	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	GSFC	B R HAWKE	NAG 5 3635	193

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32	UNIV OF HAWAII AT MANOA - HONOLULU	P G ROGERS	GSFC	P G LUCEY	NAG 5 3786	193
32	UNIV OF HAWAII AT MANOA - HONOLULU	P ROGERS	GSFC	P LUCEY	NAG 5 8759	195
32	UNIV OF HAWAII AT MANOA - HONOLULU	P ROGERS	GSFC	T OWEN	NAG 5 6829	195
32	UNIV OF HAWAII AT MANOA - HONOLULU	R H THOMAS	GSFC	P MOUGINIS-MARK	NAG 5 4257	194
32	UNIV OF HOUSTON - DOWNTOWN	E K GIBSON	JSC	P A MORRIS-SMITH	NAG 9 1113	477
32	UNIV OF HOUSTON - DOWNTOWN	E K GIBSON	JSC	P A MORRIS-SMITH	NAG 9 1114	477
32	UNIV OF ILLINOIS - CHICAGO CIRCLE	E T ENGMAN	GSFC	R D CRAGO	NAG 5 7600	209
32	UNIV OF KANSAS	R MCKALLIP	SSC	M JAKUBAUSKAS	NAG13 99019	229
32	UNIV OF MARYLAND - COLLEGE PARK	E T ENGMAN	GSFC	Y XUE	NAG 5 7587	259
32	UNIV OF MARYLAND - COLLEGE PARK	J B GARVIN	GSFC	R DUBAYAH	NAG 5 8105	260
32	UNIV OF MARYLAND BALTIMORE COUNTY	H V FREY	GSFC	E C PAVLIS	NAG 5 9054	270
32	UNIV OF MASSACHUSETTS - AMHERST	P ROGERS	GSFC	D E MCGILL	NAG 5 4373	299
32	UNIV OF MASSACHUSETTS - AMHERST	P ROGERS	GSFC	G MCGILL	NAG 5 4999	299
32	UNIV OF MASSACHUSETTS - AMHERST	T MORGAN	GSFC	F SCHOERB	NAG 5 6612	299
32	UNIV OF MEMPHIS	H V FREY	GSFC	M ELLIS	NAG 5 2995	456
32	UNIV OF MEMPHIS	H V FREY	GSFC	M ELLIS	NAG 5 7817	456
32	UNIV OF MIAMI	B G BILLS	GSFC	C HARRISON	NAG 5 1945	178
32	UNIV OF MIAMI	H V FREY	GSFC	C G HARRISON	NAG 5 7668	179
32	UNIV OF MIAMI	H V FREY	GSFC	T H DIXON	NAG 5 6033	178
32	UNIV OF MIAMI	H V FREY	GSFC	T H DIXON	NAG 5 9066	179
32	UNIV OF MIAMI	H V FREY	GSFC	T H DIXON	NAG 5 9068	179
32	UNIV OF MIAMI	P T TAYLOR	GSFC	C HARRISON	NAG 5 2969	178
32	UNIV OF MIAMI	S H GOGINENI	GSFC	T H DIXON	NAG 5 4025	178
32	UNIV OF MICHIGAN - ANN ARBOR	H V FREY	GSFC	K SARABANDI	NAG 5 8930	310
32	UNIV OF MISSISSIPPI - MEDICAL CTR	H V FREY	GSFC	J K JOHNSON	NAG 5 7671	324
32	UNIV OF MISSISSIPPI - UNIV	N SOVIK	SSC	G EASSON	NAG13 00037	324
32	UNIV OF MISSOURI - COLUMBIA	H FREY	GSFC	J F ENGELN	NAG 5 6885	325
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32	UNIV OF MONTANA	E K GIBSON	JSC	N C HINMAN	NAG 9 1112	333
32	UNIV OF NEVADA - RENO	J A GRANT	GSFC	W CALVIN	NAG 5 9298	336
32	UNIV OF NEW HAMPSHIRE - DURHAM	E T ENGMAN	GSFC	L D DINGMAN	NAG 5 7601	340
32	UNIV OF NEW MEXICO-ALBUQUERQUE	E K GIBSON	JSC	J J PAPIKE	NAG 9 1111	358
32	UNIV OF NEW MEXICO-ALBUQUERQUE	J GRANT	GSFC	H NEWSOM	NAG 5 8804	357
32	UNIV OF NEW MEXICO-ALBUQUERQUE	J H JONES	JSC	C D HERD	NGT 9 31	359
32	UNIV OF PITTSBURGH	H V FREY	GSFC	M S RAMSEY	NAG 5 9438	442
32	UNIV OF PITTSBURGH	H V FREY	GSFC	M S RAMSEY	NAG 5 9439	442
32	UNIV OF PITTSBURGH	J A GRANT	GSFC	D A CROWN	NAG 5 9466	442
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32	UNIV OF PUERTO RICO - MAYAGUEZ	H FREY	GSFC	G MATTIOLI	NAG 5 6031	539
32	UNIV OF TENNESSEE - KNOXVILLE	T L ROUSH	ARC	J E MOERSCH	NCC 2 1187	458
32	UNIV OF TEXAS - AUSTIN	A NURRIDIN	GSFC	C WILSON	NGT 5 50004	484
32	UNIV OF TEXAS - AUSTIN	B G BILLS	GSFC	B TAPLEY	NAG 5 1939	478
32	UNIV OF TEXAS - AUSTIN	F HERBERT	GSFC	B TAPLEY	NAG 5 9163	481
32	UNIV OF TEXAS - AUSTIN	H HASAN	GSFC	L M TRAFTON	NAG 5 6754	479
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	C R WILSON	NAG 5 8798	480
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J C CARTER	NAG 5 7693	480
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J C GIBEAUT	NAG 5 7680	480
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	J G PAINE	NAG 5 7582	480
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	M CHENG	NAG 5 5170	479
32	UNIV OF TEXAS - AUSTIN	H V FREY	GSFC	R R EM	NAG 5 5171	479
32	UNIV OF TEXAS - AUSTIN	M S BURRELL	GSFC	J S FAMIGLIETTI	NGT 5 81	484
32	UNIV OF TEXAS - EL PASO	D MENCHAN	GSFC	D SCHULZ-MAKUCH	NAG 5 9542	486
32	UNIV OF VIRGINIA	J G GRANT	GSFC	A D HOWARD	NAG 5 3931	507
32	UNIV OF VIRGINIA	P G ROGERS	GSFC	R E JOHNSON	NAG 5 3633	507
32	UNIV OF VIRGINIA	P ROGERS	GSFC	D A BARAGIOLA	NAG 5 4332	507
32	UNIV OF WASHINGTON	E T ENGMAN	GSFC	L TSANG	NAG 5 7495	521
32	UNIV OF WASHINGTON	E T ENGMAN	GSFC	W J PLANT	NAG 5 7550	521
32	UNIV OF WASHINGTON	H FREY	GSFC	D LETTENMAIER	NAG 5 6505	520
32	UNIV OF WASHINGTON	H V FREY	GSFC	A GILLESPIE	NAG 5 6067	519
32	UNIV OF WISCONSIN - MADISON	A L MATISAK	MSFC	T M LILLEN SAND	NCC13 17	537
32	UNIV OF WISCONSIN - MADISON	B CAMPBELL	GSFC	D A SROMOVSKY	NAG 5 6248	531
32	UNIV OF WISCONSIN - MADISON	H V FREY	GSFC	P MENZEL	NAG 5 9688	534

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32	WASHINGTON UNIV - ST	B CAMPBELL	GSFC	D FEGLEY	NAG 5 6125	328
32	WASHINGTON UNIV - ST	D G SENSKE	GSFC	R E ARVIDSON	NAG 5 3870	327
32	WASHINGTON UNIV - ST	H V FREY	GSFC	R E ARVIDSON	NAG 5 2982	327
32	WASHINGTON UNIV - ST	H V FREY	GSFC	R E ARVIDSON	NAG 5 7613	329
32	WASHINGTON UNIV - ST	J GRANT	GSFC	B L JOLLIFF	NAG 5 8905	329
32	WASHINGTON UNIV - ST	P G ROGERS	GSFC	W B MCKINNON	NAG 5 3657	327
32	WASHINGTON UNIV - ST	P ROGERS	GSFC	B L JOLLIFF	NAG 5 6784	328
32	WASHINGTON UNIV - ST	P ROGERS	GSFC	D J PHILLIPS	NAG 5 4448	327
32	WASHINGTON UNIV - ST	P ROGERS	GSFC	R ARVIDSON	NAG 5 6756	328
32	WELLESLEY COLLEGE	J G GRANT	GSFC	R G FRENCH	NAG 5 4046	301
33	CALIFORNIA INST OF TECH	S R LONG	GSFC	T Y WU	NAG 5 5207	45
33	COLUMBIA UNIV	A J BUSALACCHI	GSFC	D CHEN	NCC 5 225	367
33	COLUMBIA UNIV	G ASRAR	GSFC	B P SCHOSSER	NGT 5 30016	367
33	COLUMBIA UNIV	J A MARRA	GSFC	J A BISHOP	NAG 5 6450	364
33	DARTMOUTH COLLEGE	R MILLER	SSC	D LYNCH	NAG13 00041	337
33	DUKE UNIV	J CAMPBELL	GSFC	R T BARBER	NAG 5 6988	387
33	FLORIDA STATE UNIV	E J LINDSTROM	GSFC	W DEWAR	NAG 5 4813	169
33	FLORIDA STATE UNIV	E LINDSTROM	GSFC	J J O	NAG 5 7254	169
33	FLORIDA STATE UNIV	M RIENECKER	GSFC	W WEWAR	NAG 5 8291	170
33	FLORIDA STATE UNIV	W ESAIAS	GSFC	R L IVERSON	NAG 5 7618	169
33	GEORGE MASON UNIV	M RIENECKER	GSFC	P SCHOPF	NCC 5 245	496
33	HAMPTON UNIV	A JOYCE	SSC	B A ADESENYA	NAG13 44	498
33	JOHNS HOPKINS UNIV	S J KATZBERG	LARC	M S ASHER	NAG 1 2257	240
33	JOHNS HOPKINS UNIV	S R LONG	GSFC	O PHILLIPS	NAG 5 5047	242
33	MASSACHUSETTS INST OF TECH	J A YODER	GSFC	S W CHISHOLM	NAG 5 3727	286
33	MISSISSIPPI STATE UNIV	D POWE	SSC	L RITCHIE	NAS13 98033	323
33	NORTH CAROLINA STATE UNIV	J A MARRA	GSFC	D KAMYKOWSKI	NAG 5 6586	392
33	OLD DOMINION UNIV	C MCCLAIN	GSFC	G F COTA	NAS 5 97132	503
33	OREGON STATE UNIV	C KOBLINSKY	GSFC	E BOSS	NAG 5 8732	421
33	OREGON STATE UNIV	C MCCLAIN	GSFC	J R ZANEVELD	NAS 5 97129	422
33	OREGON STATE UNIV	H OSEROFF	GSFC	M R ABBOTT	NAS 5 31360	422
33	OREGON STATE UNIV	J A YODER	GSFC	M R ABBOTT	NAG 5 4947	420
33	OREGON STATE UNIV	R RAY	GSFC	G D EGBERT	NAG 5 9159	421
33	PENN STATE UNIV	M T FLYNN	ARC	C FISHER	NCC 2 5341	438
33	SAN DIEGO STATE UNIV	C R MCCLAIN	GSFC	J L MUELLER	NAS 5 97126	56
33	STEVENS INST OF TECH	C MCCLAIN	GSFC	K STAMNES	NAS 5 99238	352
33	U OF MD CTR FOR ENVIRON SCI-CAMBRDG	J MARRA	GSFC	D G CAPONE	NAS 5 97131	252
33	UNIV OF MINN	M T FLYNN	ARC	W E SEYFRIED	NCC 2 5340	319
33	UNIV OF ALASKA - FAIRBANKS	C MCCLAIN	GSFC	D L ESLINGER	NAS 5 97133	21
33	UNIV OF ALASKA - FAIRBANKS	C MCCLAIN	GSFC	K STAMNES	NAS 5 97138	21
33	UNIV OF ARIZONA	D E WICKLAND	HQ	P N SLATER	NAGW 3543	38
33	UNIV OF CALIFORNIA - IRVINE	S R LONG	GSFC	J N YANG	NAG 5 5149	88
33	UNIV OF CALIFORNIA - LOS ANGELES	B C DOUGLAS	GSFC	J C MCWILLIAMS	NAG 5 3982	92
33	UNIV OF CALIFORNIA - SAN DIEGO	A J BUSALACCHI	GSFC	F VALERO	NGT 5 42	109
33	UNIV OF CALIFORNIA - SAN DIEGO	C KOBLINSKY	GSFC	P P NILER	NAG 5 8351	105
33	UNIV OF CALIFORNIA - SAN DIEGO	C R MCCLAIN	GSFC	B G MITCHELL	NAS 5 97130	107
33	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	W WHITE	NAG 5 7096	103
33	UNIV OF CALIFORNIA - SAN DIEGO	G A SOFFEN	GSFC	B G MITCHELL	NGT 5 106	109
33	UNIV OF CALIFORNIA - SAN DIEGO	G ASRAR	GSFC	B MITCHELL	NGT 5 30036	109
33	UNIV OF CALIFORNIA - SAN DIEGO	J A YODER	GSFC	R KEELING	NAG 5 6179	102
33	UNIV OF CALIFORNIA - SAN DIEGO	J MUELLER	GSFC	K STAMNES	NAS 5 97139	107
33	UNIV OF CALIFORNIA - SANTA BARBARA	C MCCLAIN	GSFC	D A SIEGEL	NAS 5 97125	114
33	UNIV OF CALIFORNIA - SANTA BARBARA	C MCCLAIN	GSFC	T D DICKEY	NAS 5 97127	114
33	UNIV OF CALIFORNIA - SANTA BARBARA	C R MCCLAIN	GSFC	D SIEGEL	NAS 5 99083	114
33	UNIV OF CALIFORNIA - SANTA BARBARA	H OSEROFF	GSFC	Z WAN	NAS 5 31370	114
33	UNIV OF CALIFORNIA - SANTA BARBARA	R H THOMAS	GSFC	R C SMITH	NAG 5 4126	111
33	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	P AXELRAD	NAG 5 9727	140
33	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	W EMERY	NAG 5 7365	135
33	UNIV OF DELAWARE	S K RUNCO	JSC	V KLEMAS	NAG 9 989	152
33	UNIV OF GEORGIA	G ASRAR	GSFC	B BINDER	NGT 5 30017	192
33	UNIV OF HAWAII AT MANOA - HONOLULU	C MCLAIN	GSFC	J PORTER	NAS 5 97136	199
33	UNIV OF HAWAII AT MANOA - HONOLULU	R G KIRK	GSFC	L MAGAARD	NAG 5 7485	195
33	UNIV OF MARYLAND - COLLEGE PARK	E LINDSTROM	GSFC	R WAJSOWICZ	NAG 5 3960	254
33	UNIV OF MARYLAND - COLLEGE PARK	N MAYNARD	GSFC	L WANG	NAG 5 4186	254

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33	UNIV OF MARYLAND BALTIMORE COUNTY	W SCHIMMERLING	GSFC	E BALCER-KUBICZEK	NAG 5 8555	269
33	UNIV OF MIAMI	H OSEROFF	GSFC	O B BROWN	NAS 5 31361	179
33	UNIV OF NEW ENGLAND	D SIX	MSFC	S I ZEEMAN	NAG 8 1219	238
33	UNIV OF PUERTO RICO - MAYAGUEZ	C W WRIGHT	WFF	E WEIL	NAG 5 5302	539
33	UNIV OF PUERTO RICO - MAYAGUEZ	R L MILLER	SSC	R A ARMSTRONG	NAG13 54	540
33	UNIV OF RHODE ISLAND	E LINDSTROM	GSFC	D CONRILLON	NAG 5 6077	447
33	UNIV OF RHODE ISLAND	E LINDSTROM	GSFC	P CORNILLON	NAG 5 3736	447
33	UNIV OF RHODE ISLAND	M MAIDEN	GSFC	P CORNILLON	NCC 5 307	448
33	UNIV OF SOUTH FLORIDA	A C JANETOS	HQ	M LUTHER	NGT 30270	180
33	UNIV OF SOUTH FLORIDA	C R MCCLAIN	GSFC	F E MULLER-KARGER	NAS 5 97128	180
33	UNIV OF SOUTH FLORIDA	G S HAYNE	GSFC	G T MITCHUM	NAG 5 5202	180
33	UNIV OF SOUTH FLORIDA	J YODER	GSFC	P COBLE	NAG 5 6301	180
33	UNIV OF SOUTH FLORIDA	K P LULLA	JSC	L L ROBBINS	NAG 9 959	180
33	UNIV OF SOUTHERN CALIFORNIA	C MCCLAIN	GSFC	D G CAPONE	NAS 5 99232	122
33	UNIV OF SOUTHERN CALIFORNIA	J A YODER	GSFC	D A KIEFER	NAG 5 6360	120
33	UNIV OF SOUTHERN MISSISSIPPI	J A CAMPBELL	GSFC	S LOHRENZ	NAG 5 4570	324
33	UNIV OF SOUTHERN MISSISSIPPI	J MARRA	GSFC	S E LOHRENZ	NAG 5 9770	324
33	UNIV OF WASHINGTON	G ASRAR	GSFC	L THOMPSON	NGT 5 30030	525
33	UNIV OF WASHINGTON	J A CURRAN	GSFC	D HARTMANN	NAG 5 6101	519
33	UNIV OF WASHINGTON	J SWANK	GSFC	R W LINDSAY	NAG 5 4175	518
33	UNIV OF WASHINGTON	R H THOMAS	GSFC	S MARTIN	NAG 5 4176	518
33	UNIVERSITY OF WISCONSIN-OSHKOSH	K R ARRIGO	GSFC	M P LIZOTTE	NAG 5 4108	538
33	VA POLYTECH INST & ST UNIV	G E KAYNE	GSFC	G E BROWN	NAG 5 5099	514
33	WOODS HOLE OCEANOGRAPHIC INST	J A YODER	GSFC	D M GLOVER	NAG 5 6456	301
33	WOODS HOLE OCEANOGRAPHIC INST	J COMISO	GSFC	J YANG	NAG 5 7348	301
33	WOODS HOLE OCEANOGRAPHIC INST	M RIENECKER	GSFC	L YU	NCC 5 441	301
33	YALE UNIV	S H GOGINENI	GSFC	R B SMITH	NAG 5 3972	149
39	ALABAMA A&M UNIV	B L WHITE	HQ	T L COLEMAN	NCCW 84	2
39	ALABAMA A&M UNIV	R HOOVER	MSFC	M G TADROS	NAG 8 1624	2
39	ALLEGHENY COLLEGE	A J TUYAHOV	GSFC	D BENSEL	NAG 5 3617	423
39	ALLEGHENY COLLEGE	J DASCH	HQ	T G BENSEL	NAG 5 6564	424
39	ARIZONA STATE UNIV	H BLODGET	GSFC	P CHRISTENSEN	NAS 5 31371	25
39	ARIZONA STATE UNIV	M WEI	GSFC	J R ARROWSMITH	NGT 5 30221	25
39	AUBURN UNIV	D DEERING	GSFC	K MCNABB	NCC 5 333	3
39	AUBURN UNIV	J R ARNOLD	MSFC	U HATCH	NCC 8 151	4
39	AUGUSTANA COLLEGE	N KHAZENIE	GSFC	V K OLNESS	NAG 5 6299	452
39	BOISE STATE UNIV	E ENGMAN	GSFC	P DAWSON	NAG 5 7537	200
39	BOSTON UNIV	C TUCKER	GSFC	R MYNENI	NAG 5 7472	274
39	BOSTON UNIV	D E WICKLAND	GSFC	M FRIEDL	NAG 5 7218	274
39	BOSTON UNIV	D E WICKLAND	GSFC	X LI	NAG 5 7217	274
39	BOSTON UNIV	D L WILLIAMS	GSFC	C WOODCOCK	NAG 5 3439	272
39	BOSTON UNIV	DODGE	GSFC	R MYNENI	NAG 5 9547	275
39	BOSTON UNIV	E LINDSTROM	GSFC	D R KEY	NAG 5 4903	273
39	BOSTON UNIV	E T ENGMAN	GSFC	G D SALVUCCI	NAG 5 8666	275
39	BOSTON UNIV	E T ENGMAN	GSFC	M A FRIEDL	NAG 5 8584	275
39	BOSTON UNIV	G C GUTMAN	GSFC	D K KAUFMANN	NAG 5 6214	273
39	BOSTON UNIV	J PRIVETTE	GSFC	R MYNENI	NAG 5 8659	275
39	BOSTON UNIV	M WEI	GSFC	G SALVUCCI	NAG 5 6716	274
39	BOSTON UNIV	M WEI	GSFC	R MYNENI	NGT 5 30223	276
39	BOSTON UNIV	S GOGINENI	GSFC	D KEY	NAG 5 4850	273
39	BOWIE STATE UNIV	D L WILLIAMS	GSFC	W LAWRENCE	NAG 5 7689	239
39	BOWIE STATE UNIV	E MIDDLETON	GSFC	W T LAWRENCE	NCC 5 507	239
39	BOWIE STATE UNIV	M L IMHOFF	GSFC	W LAWRENCE	NAG 5 6476	239
39	BOWLING GREEN STATE UNIV	T M SCOTT	GRC	D K VINCENT	NAG 3 2443	397
39	BRIGHAM YOUNG UNIV	E LINDSTROM	GSFC	D LONG	NAG 5 8746	488
39	BRIGHAM YOUNG UNIV	J DODGE	GSFC	D LONG	NAG 5 9625	488
39	BRIGHAM YOUNG UNIV	M Y WEI	GSFC	M A JENSEN	NAG 5 6782	487
39	BROWN UNIV	A JANETOS	GSFC	J MUSTART	NAG 5 6003	445
39	BROWN UNIV	M WEI	GSFC	J MUSTARD	NAG 5 6597	445
39	BROWN UNIV	S G UNGAR	GSFC	J F MUSTARD	NAG 5 9121	446
39	BROWN UNIV	S G UNGAR	GSFC	J F MUSTARD	NCC 5 487	446
39	BUCKNELL UNIV	E T ENGMAN	GSFC	R D CRAGO	NAG 5 8679	424
39	BUCKNELL UNIV	E T ENGMAN	GSFC	R D CRAGO	NAG 5 8699	424
39	CALIFORNIA INST OF TECH	D WICKLAND	GSFC	J RANDERSON	NAG 5 9462	48
39	CALIFORNIA INST OF TECH	M Y WEI	GSFC	B C MURRAY	NGT 5 30138	50
39	CALIFORNIA INST OF TECH	M Y WEI	GSFC	M SIMONS	NGT 5 30135	50

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39	CALIFORNIA INST OF TECH	P DECOLA	GSFC	P WENBERG	NAG 5 8922	48
39	CALIFORNIA INST OF TECH	P HOUSER	GSFC	Y L YUNG	NAG 5 9487	48
39	CALIFORNIA POLYTECH STATE U-SAN LUIS	M WEI	GSFC	M A MOLINE	NAG 5 8674	51
39	CALIFORNIA STATE UNIV - LONG BEACH	A J TUYAHOV	GSFC	C T LEE	NAG 5 9310	52
39	CALIFORNIA STATE UNIV - LONG BEACH	B MEESON	GSFC	E AMBOS	NCC 5 329	52
39	CALIFORNIA STATE UNIV - LOS ANGELES	D E WICKLAND	GSFC	J A GAMON	NAG 5 7401	53
39	CALIFORNIA STATE UNIV - LOS ANGELES	H M ADELMAN	LARC	H HASEMIAN	NAG 1 2029	52
39	CALIFORNIA STATE UNIV - MONTEREY BAY	A JANETOS	GSFC	L PIERCE	NAG 5 6529	53
39	CALIFORNIA STATE UNIV - MONTEREY BAY	H CARR	SSC	L F JOHNSON	NAS13 98071	54
39	CALIFORNIA STATE UNIV - MONTEREY BAY	J C COUGHLAN	ARC	S E ALEXANDER	NCC 2 975	54
39	CALIFORNIA STATE UNIV - MONTEREY BAY	J C COUGHLAN	ARC	S E ALEXANDER	NCC 2 1186	54
39	CALIFORNIA STATE UNIV - MONTEREY BAY	N KHAZENIE	GSFC	J F PARIS	NAG 5 6295	53
39	CALIFORNIA STATE UNIV - MONTEREY BAY	R MCKELLIP	SSC	L F JOHNSON	NAG13 99020	54
39	CARNEGIE - MELLON UNIV	C FARMER	JSC	D HERSHBERGER	NAG 9 1242	426
39	CASE WESTERN RESERVE UNIV	W HVANCIC	GRC	J ISHAC	NAG 3 2391	398
39	CITY UNIV OF NY CITY COLLEGE	A A LACIS	GSFC	R KHANBILVARDI	NCC 5 206	361
39	CLARION UNIV OF PENNSYLVANIA	J FLOWDY	MSFC	A J VEGA	NAG 8 1312	427
39	CLARK UNIV	A JANETOS	GSFC	B TURNER	NAG 5 6046	277
39	CLARK UNIV	M WEI	GSFC	B L TURNER	NGT 5 97	277
39	CLARK UNIV	M WEI	GSFC	B L TURNER	NGT 5 30197	277
39	CLARK UNIV	M WEI	GSFC	B L TURNER	NGT 5 30217	277
39	CLARK UNIV	M WEI	GSFC	S HERWITZ	NGT 5 30032	277
39	CLARK UNIV	M Y WEI	GSFC	B L TUNNER	NGT 5 30153	277
39	CLARK UNIV	M Y WEI	GSFC	B L TURNER	NGT 5 30147	277
39	CLARK UNIV	M Y WEI	GSFC	J GEOGHEGAN	NAG 5 8559	277
39	COLLEGE OF SAN MATEO	N KHAZENIE	GSFC	K D KENNEDY	NAG 5 4883	55
39	COLORADO STATE UNIV	D E WICKLAND	GSFC	N HANAN	NAG 5 8705	124
39	COLORADO STATE UNIV	D W DEERING	GSFC	A DENNING	NCC 5 284	125
39	COLORADO STATE UNIV	D WICKLAND	HQ	W PARTON	NAG 5 4983	124
39	COLORADO STATE UNIV	G ASRAR	GSFC	E KELLY	NGT 5 30024	125
39	COLORADO STATE UNIV	G C GUTMAN	GSFC	D OJIMA	NAG 5 4646	123
39	COLORADO STATE UNIV	J C DODGE	GSFC	P L STEPHENS	NAG 5 6637	124
39	COLORADO STATE UNIV	J RANSON	GSFC	D OJIMA	NAG 5 6228	124
39	COLORADO STATE UNIV	M WEI	GSFC	S A RUTLEDGE	NGT 5 30218	126
39	COLORADO STATE UNIV	R H THOMAS	GSFC	D LISTON	NAG 5 4073	123
39	COLUMBIA UNIV	D E WICKLAND	GSFC	E MATTHEWS	NAG 5 6321	363
39	COLUMBIA UNIV	D KAHLE	GSFC	R MILLER	NAG 5 7688	364
39	COLUMBIA UNIV	D KAHLE	GSFC	R MILLER	NAG 5 8808	365
39	COLUMBIA UNIV	D L PIERCE	GSFC	B CAIRNS	NAG 5 5275	363
39	COLUMBIA UNIV	D RIND	GSFC	M A CANE	NAG 5 7044	364
39	COLUMBIA UNIV	E LINDSTROM	GSFC	A L FIELD	NAG 5 6948	364
39	COLUMBIA UNIV	E LINDSTROM	GSFC	A L GORDON	NAG 5 8297	365
39	COLUMBIA UNIV	E LINDSTROM	GSFC	R SEAGER	NAG 5 6315	363
39	COLUMBIA UNIV	J MARRA	GSFC	T TAKAHASHI	NAG 5 6877	364
39	COLUMBIA UNIV	M WEI	GSFC	D L WITTER	NAG 5 8675	365
39	COLUMBIA UNIV	M WEI	GSFC	M CANE	NGT 5 50323	368
39	COLUMBIA UNIV	M Y WEI	GSFC	T TAKAHASHI	NGT 5 30167	368
39	COLUMBIA UNIV	P R HOUSER	GSFC	M STIEGLITZ	NAG 5 9759	366
39	COLUMBIA UNIV	Q BARKER	GSFC	R S CHEN	NAS 5 98162	367
39	COLUMBIA UNIV	R H THOMAS	GSFC	D M HOLLAND	NAG 5 4028	362
39	COLUMBIA UNIV	R KOSTER	GSFC	M STIEGLITZ	NCC 5 218	367
39	COLUMBIA UNIV	R KOSTER	GSFC	M STIEGLITZ	NCC 5 510	367
39	COLUMBIA UNIV	S GOGINENI	GSFC	D G MARTINSON	NAG 5 6876	364
39	COLUMBIA UNIV	S GOGINENI	GSFC	D MARTINSON	NAG 5 7922	365
39	COLUMBIA UNIV	S GOGINENI	GSFC	S S JACOBS	NAG 5 7461	364
39	CORNELL UNIV	D DEERING	GSFC	E FERNANDES	NCC 5 298	374
39	CORNELL UNIV	J BOYCE	GSFC	R J SULLIVAN	NAG 5 9794	373
39	CORNELL UNIV	J CAMPBELL	GSFC	B MONGER	NAG 5 8188	372
39	CORNELL UNIV	J JODER	GSFC	G CHARLES	NAG 5 6273	371
39	CORNELL UNIV	M BATLUCK	GSFC	B ISACKS	NAG 5 6111	371
39	CORNELL UNIV	M WEI	GSFC	L O HEDIN	NGT 5 30210	375
39	CORNELL UNIV	M Y WEI	GSFC	C H GREENE	NGT 5 50218	375
39	DARTMOUTH COLLEGE	P HOUSER	GSFC	R BRAKENRIDGE	NAG 5 9470	337
39	DARTMOUTH COLLEGE	R H THOMAS	GSFC	G BRAKENRIDGE	NAG 5 4178	336
39	DREXEL UNIV	R MILLER	SSC	M PIASECKI	NAG13 00040	428
39	DUKE UNIV	A NURRIDIN	HQ	R T BARBER	NGT 5 50224	388

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39	DUKE UNIV	J MARRA	GSFC	R T BARBER	NAG 5 9348	387
39	DUKE UNIV	M S BURRELL	GSFC	B SCHESINGER	NGT 5 89	388
39	DUKE UNIV	M WEI	GSFC	J REYNOLDS	NGT 5 30355	388
39	DUKE UNIV	M WEI	GSFC	P N HALPIN	NAG 5 8482	387
39	DUKE UNIV	P DECOLA	GSFC	P KASIBHATLA	NAG 5 9805	387
39	DUKE UNIV	R KNOX	GSFC	D L URBAN	NCC 5 233	387
39	ECKERD COLLEGE	F SIX	MSFC	J B THOMPSON	NAG 8 1103	163
39	ELIZABETH CITY STATE UNIV	N KHAZENIE	GSFC	L B HAYDEN	NAG 5 9372	389
39	ELIZABETH CITY STATE UNIV	N KHAZIE	GSFC	L HAYDEN	NAG 5 9371	388
39	FLA INTERNATIONAL UNIV	J W CAMPBELL	GSFC	L L RICHARDSON	NAG 5 8156	164
39	FLA INTERNATIONAL UNIV	M WEI	GSFC	D WITHMAN	NAG 5 8830	164
39	FLORIDA STATE UNIV	D E WICKLAND	GSFC	E A SMITH	NAG 5 7302	169
39	FLORIDA STATE UNIV	D E WICKLAND	GSFC	E A SMITH	NAG 5 9888	170
39	FLORIDA STATE UNIV	D W DEERING	GSFC	E A SMITH	NCC 5 292	171
39	FLORIDA STATE UNIV	D WICKLAND	GSFC	E SMITH	NAG 5 8258	169
39	FLORIDA STATE UNIV	E LINDSTROM	GSFC	J J O	NAG 5 8327	170
39	FLORIDA STATE UNIV	E LINDSTROM	GSFC	J O	NAG 5 8325	169
39	FLORIDA STATE UNIV	E T ENGMAN	GSFC	S E NICHOLSON	NAG 5 8598	170
39	FLORIDA STATE UNIV	J C DODGE	GSFC	E A SMITH	NAG 5 8665	169
39	FLORIDA STATE UNIV	M WEI	GSFC	S E NICHOLSON	NGT 5 30186	171
39	FLORIDA STATE UNIV	M WEI	GSFC	T KRISHNAMURTI	NGT 5 30191	171
39	FLORIDA STATE UNIV	M Y WEI	GSFC	D NOF	NGT 5 30164	171
39	FLORIDA STATE UNIV	M Y WEI	GSFC	J J OBRIEN	NGT 5 30158	171
39	FLORIDA STATE UNIV	W ESAIAS	GSFC	W DEWAR	NAG 5 7630	169
39	FORT HAYS STATE UNIV	E LINDSTROM	GSFC	J HEINRICHS	NAG 5 8633	227
39	GEORGE MASON UNIV	A T CHANG	GSFC	L S CHIU	NAG 5 9035	496
39	GEORGE MASON UNIV	J A WEINMAN	GSFC	L CHIU	NAG 5 9636	496
39	GEORGE WASHINGTON UNIV	J GASCH	GSFC	D WILLIAMSON	NAG 5 3957	154
39	GEORGIA INST OF TECH	A J TUYAHOV	GSFC	W L CHAMEIDES	NAG 5 3855	185
39	GEORGIA INST OF TECH	A J TUYAHOV	GSFC	W L CHAMEIDES	NAG 5 9868	185
39	GEORGIA INST OF TECH	M KURYLO	GSFC	P H WINE	NAG 5 8931	185
39	GEORGIA INST OF TECH	M WEI	GSFC	W L CHAMEIDES	NGT 5 50330	188
39	GEORGIA INST OF TECH	P DECOLA	GSFC	F EISELE	NAG 5 8891	185
39	GEORGIA INST OF TECH	R TRAVIS	SSC	K MAXWELL	NGT13 52742	188
39	HARVARD UNIV	D E WICKLAND	GSFC	S C WORSY	NAG 5 7534	280
39	HARVARD UNIV	D W DEERING	GSFC	S C WOFYSY	NCC 5 341	281
39	HARVARD UNIV	D WICKLAND	HQ	D WOFYSY	NAG 5 6138	279
39	HARVARD UNIV	G ASRAR	GSFC	F BAZZAZ	NGT 5 30002	281
39	HARVARD UNIV	M WEI	GSFC	J ANDERSON	NGT 5 30336	282
39	HARVARD UNIV	M WEI	GSFC	S C WOFYSY	NGT 5 30205	281
39	HARVARD UNIV	M Y WEI	GSFC	R FORMAN	NGT 5 30144	281
39	HARVARD UNIV	M Y WEI	GSFC	S C WOFYSY	NGT 5 30152	281
39	HARVARD UNIV	P DECOLA	GSFC	D J JACOB	NAG 5 9843	281
39	HARVARD UNIV	R CURRAN	GSFC	J ANDERSON	NAG 5 8779	280
39	HOFSTRA UNIV	E J LINDSTROM	GSFC	D E WEISSMAN	NAG 5 7503	375
39	ILLINOIS STATE UNIV	J F DOWNDY	MSFC	D HOLLAND	NAG 8 1282	201
39	INDIANA UNIV - BLOOMINGTON	D DEERING	GSFC	E MORAN	NCC 5 334	217
39	INDIANA UNIV - BLOOMINGTON	G GUTMAN	GSFC	E F MORAN	NAG 5 9852	218
39	IOWA STATE UNIV	E K GIBSON	JSC	P A BAZLINSKI	NAG 9 1115	223
39	JACKSON STATE UNIV	J F DOWDY	MSFC	R S REDDY	NAG 8 1316	321
39	JAMES MADISON UNIV	N KHAZENIE	GSFC	J BARNES	NAG 5 6188	500
39	JOHNS HOPKINS UNIV	E LINDSTROM	GSFC	K RANEY	NAG 5 8885	246
39	JOHNS HOPKINS UNIV	E LINDSTROM	GSFC	K RANEY	NAG 5 9113	247
39	JOHNS HOPKINS UNIV	J H BREDEKAMP	GSFC	A SZALAY	NAG 5 8590	246
39	JOHNS HOPKINS UNIV	K H BERGMAN	GSFC	M B PARLANGE	NAG 5 9426	248
39	JOHNS HOPKINS UNIV	M WEI	GSFC	D WAUGH	NGT 5 50328	250
39	JOHNS HOPKINS UNIV	S GOGINENI	GSFC	B L GOTWOLS	NAG 5 8007	244
39	KANSAS STATE UNIV	A JANETOS	GSFC	D JOHNSON	NAG 5 8213	228
39	KENT STATE UNIV	T SCOTT	GRC	D MUNRO-STASIUK	NAG 3 2418	404
39	LAC COURTE OREILLES OJIBWA COMM CLG	A F HEPP	GRC	D H ANDERSON	NAG 3 2293	528
39	LOUISIANA STATE UNIV - BATON ROUGE	C E HALL	MSFC	J ZHU	NCC 8 201	234
39	LOUISIANA STATE UNIV - BATON ROUGE	R TRAVIS	SSC	B S GOODWIN	NGT13 52743	234
39	MASSACHUSETTS INST OF TECH	D WICKLAND	GSFC	D ENTEKHABI	NAG 5 8441	288
39	MASSACHUSETTS INST OF TECH	E J LINSTROM	GSFC	B HAGER	NAG 5 8352	288
39	MASSACHUSETTS INST OF TECH	E LINDSTROM	GSFC	C WUNSCH	NAG 5 7857	290



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39	MASSACHUSETTS INST OF TECH	E LUNDSTROM	GSFC	D STAMMER	NAG 5 7162	288
39	MASSACHUSETTS INST OF TECH	E LUNDSTROM	GSFC	P RIZZOLI	NAG 5 7194	288
39	MASSACHUSETTS INST OF TECH	E LUNDSTROM	GSFC	P WUNSCH	NAG 5 6224	288
39	MASSACHUSETTS INST OF TECH	E T ENGMAN	GSFC	D MCLAUGHLIN	NCC 5 416	296
39	MASSACHUSETTS INST OF TECH	E T ENGMAN	GSFC	E B ELTAHIR	NAG 5 8617	291
39	MASSACHUSETTS INST OF TECH	J MARRA	GSFC	J MARSHALL	NCC 5 244	295
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	B TROUT	NGT 5 30334	296
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	C WUNSCH	NGT 5 30337	296
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	D ENTEKHABI	NAG 5 6394	288
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	D ENTEKHABI	NAG 5 6592	288
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	D ENTEKHABI	NGT 5 30190	296
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	E ELTAHIR	NAG 5 7525	290
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	J MARSHALL	NGT 5 30189	296
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	K X WHIPPLE	NGT 5 30188	296
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	R A PLUMB	NGT 5 30200	296
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	R BRAS	NGT 5 30339	296
39	MASSACHUSETTS INST OF TECH	M WEI	GSFC	R L BRAS	NGT 5 30212	296
39	MASSACHUSETTS INST OF TECH	M Y WEI	GSFC	D ENTEKHABI	NGT 5 30145	296
39	MASSACHUSETTS INST OF TECH	P DECOLA	GSFC	M MOLINA	NAG 5 8887	291
39	MASSACHUSETTS INST OF TECH	W LAU	GSFC	P EAGLESON	NAS 5 31721	294
39	MEDGAR EVERS COLLEGE	A A LACIS	GSFC	L P JOHNSON	NCC 5 205	376
39	MIAMI UNIV	T M SCOTT	GRC	J MILLARD	NAG 3 2436	404
39	MICHIGAN STATE UNIV	A C JANETOS	GSFC	J LIU	NAG 5 8317	303
39	MICHIGAN STATE UNIV	A JANETOS	GSFC	D BROWN	NAG 5 6042	303
39	MICHIGAN STATE UNIV	A JANETOS	GSFC	D SKOLE	NAG 5 6538	303
39	MICHIGAN STATE UNIV	A JANETOS	GSFC	D SKOLE	NAG 5 6638	303
39	MICHIGAN STATE UNIV	A JOYCE	SSC	P SORRANO	NGT13 52715	304
39	MICHIGAN STATE UNIV	D DEERING	GSFC	D SKOLE	NCC 5 291	304
39	MICHIGAN STATE UNIV	D WILLIAMS	GSFC	D SKOLE	NAG 5 4810	303
39	MICHIGAN STATE UNIV	G GUTMAN	GSFC	R WALKER	NAG 5 9232	303
39	MICHIGAN STATE UNIV	G GUTMAN	HQ	J QI	NAG 5 9286	303
39	MICHIGAN STATE UNIV	M WEI	GSFC	D J CAMPBELL	NGT 5 30340	304
39	MICHIGAN STATE UNIV	M Y WEI	GSFC	J LIU	NGT 5 30166	304
39	MICHIGAN TECHNOLOGICAL UNIV	G ASRAR	GSFC	P DEBANKER	NGT 5 30028	305
39	MICHIGAN TECHNOLOGICAL UNIV	M Y WEI	GSFC	G BLUTH	NGT 5 30154	305
39	MICHIGAN TECHNOLOGICAL UNIV	S GOGINENI	GSFC	D PILANT	NAG 5 7051	304
39	MISSISSIPPI STATE UNIV	M WEI	GSFC	D L EVANS	NAG 5 6519	322
39	MISSISSIPPI STATE UNIV	R MCKELLIP	SSC	S ROBERTS	NAG13 99018	323
39	MONTANA STATE UNIV	A C JANETOS	GSFC	A HASEN	NAG 5 6005	331
39	MONTANA STATE UNIV	G GUTMAN	GSFC	A HANSEN	NAG 5 9300	331
39	MONTANA STATE UNIV	G GUTMAN	GSFC	A HANSEN	NAG 5 9806	331
39	MONTANA TECH OF THE UNIV OF MONTANA	N KHAZENIE	GSFC	T MOON	NAG 5 9139	332
39	MT HOLYOKE COLLEGE	M Y WEI	GSFC	J L BUBIER	NAG 5 8635	297
39	NEW MEXICO HIGHLANDS UNIV	L M ARMEDARIZ	JSC	J C	NAG 9 1139	353
39	NEW MEXICO INST OF MINING & TECH	D WICKLAND	GSFC	E E SMALL	NAG 5 9328	354
39	NEW MEXICO INST OF MINING & TECH	F K GIBSON	JSC	T L KIEFT	NAG 9 1106	354
39	NEW MEXICO STATE UNIV - LAS CRUCES	C E WADE	ARC	E E SERRANO	NAG 2 1334	354
39	NY UNIV	M REINECKER	GSFC	R KLEEMAN	NAG 5 9871	377
39	NY UNIV	S GOGINENI	GSFC	D M HOLLAND	NAG 5 8475	376
39	NORFOLK STATE UNIV	N KHAZENIE	GSFC	W J RODRIGUEZ	NAG 5 6298	501
39	NORFOLK STATE UNIV	N KHAZENIE	GSFC	W J RODRIGUEZ	NAG 5 9374	501
39	NORTH CAROLINA STATE UNIV	J CAMPBELL	GSFC	J MORRISON	NAG 5 6520	392
39	NORTH CAROLINA STATE UNIV	J MARRA	GSFC	J MORRISON	NAG 5 8865	393
39	NORTH CAROLINA STATE UNIV	M WEI	GSFC	J M MORRISON	NGT 5 30192	394
39	OHIO STATE UNIV	E J LINDSTROM	GSFC	C K SHUM	NAG 5 7284	407
39	OHIO STATE UNIV	E LIDSTROM	GSFC	K N BERLINER	NAG 5 8455	407
39	OHIO STATE UNIV	E LINDSTROM	GSFC	C DER VEEN	NAG 5 8632	407
39	OHIO STATE UNIV	G ASRAR	GSFC	L G THOMPSON	NGT 5 30012	409
39	OHIO STATE UNIV	M WEI	GSFC	L BROWN	NGT 5 30042	409
39	OHIO STATE UNIV	R H THOMAS	GSFC	D L THOMPSON	NAG 5 4075	406
39	OHIO STATE UNIV	R H THOMAS	HQ	D H BROMWICH	NAGW 3877	408
39	OHIO STATE UNIV	S GOGINENI	GSFC	D JEZEK	NAG 5 4849	406
39	OHIO STATE UNIV	S GOGINENI	GSFC	E S MOSLEY-THOMPSON	NAG 5 6817	406
39	OHIO STATE UNIV	S GOGINENI	GSFC	K C JEZEK	NAG 5 6818	407
39	OHIO STATE UNIV	S GOGINENI	HQ	D BROMWICH	NAG 5 6001	406
39	OHIO STATE UNIV	T M SCOTT	GRC	D L MORRISON	NAG 3 2412	406

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39	OHIO STATE UNIV	T M SCOTT	GRC	J K KLEIN	NAG 3 2410	406
39	OHIO STATE UNIV	T M SCOTT	GRC	S DAVIS	NAG 3 2428	406
39	OKLAHOMA STATE UNIV	D E WICKLAND	GSFC	S J STADLER	NAG 5 7451	418
39	OLD DOMINION UNIV	N KHAZENIE	GSFC	E SMITH	NAG 5 4515	503
39	OLD DOMINION UNIV	S J KATZBERG	LARC	G F OERTEL	NAG 1 2082	502
39	OREGON STATE UNIV	D E WICKLAND	GSFC	B LAW	NAG 5 7551	420
39	OREGON STATE UNIV	D E WICKLAND	GSFC	L MAHRT	NAG 5 7416	420
39	OREGON STATE UNIV	D E WICKLAND	GSFC	M H UNSWORTH	NAG 5 7531	420
39	OREGON STATE UNIV	D E WICKLAND	GSFC	R H WARING	NAG 5 7506	420
39	OREGON STATE UNIV	D E WICKLAND	GSFC	W B COHEN	NAG 5 7856	421
39	OREGON STATE UNIV	D WICKLAND	HQ	B E LAW	NAG 5 8315	421
39	OREGON STATE UNIV	E LINDSTROM	GSFC	A F BENNETT	NAG 5 8180	421
39	OREGON STATE UNIV	E LINDSTROM	GSFC	D B CHELTON	NAG 5 6354	420
39	OREGON STATE UNIV	G C GUTMAN	GSFC	D E HARMON	NAG 5 6242	420
39	OREGON STATE UNIV	G GUTMAN	GSFC	O N KRANKINA	NAG 5 9677	421
39	OREGON STATE UNIV	J C DODGE	GSFC	D FREILICH	NAG 5 8642	420
39	OREGON STATE UNIV	J CAMPBELL	GSFC	J R ZANEVELD	NAG 5 8647	420
39	OREGON STATE UNIV	J CAMPBELL	GSFC	K SHIFRIN	NAG 5 8530	420
39	OREGON STATE UNIV	J DODGE	GSFC	M R ABBOTT	NAG 5 8989	421
39	OREGON STATE UNIV	M WEI	GSFC	B MATE	NGT 5 30185	422
39	OREGON STATE UNIV	M WEI	GSFC	R P DICK	NGT 5 96	422
39	OREGON STATE UNIV	M WEI	GSFC	W B COHEN	NGT 5 30214	422
39	OREGON STATE UNIV	S GOGINENI	GSFC	G LEVY	NAG 5 8520	421
39	OREGON STATE UNIV	S GOGINENI	GSFC	L MAHRT	NAG 5 8601	421
39	PENN STATE UNIV	D WILLIAMS	GSFC	W MEYERS	NAG 5 6713	433
39	PENN STATE UNIV	E ENGMAN	GSFC	K DAVIS	NAG 5 10050	436
39	PENN STATE UNIV	E T ENGMAN	GSFC	D MILLER	NAG 5 8738	435
39	PENN STATE UNIV	E T ENGMAN	GSFC	D R STAUFFER	NAG 5 8735	435
39	PENN STATE UNIV	J A MARRA	GSFC	R NAJJAR	NAG 5 6389	433
39	PENN STATE UNIV	J CAMPBELL	GSFC	R NAJJAR	NAG 5 6451	433
39	PENN STATE UNIV	M J IMHOFF	GSFC	G W PETERSEN	NAG 5 3856	431
39	PENN STATE UNIV	M MAIDEN	GSFC	A K GLASMEIER	NAG 5 7647	434
39	PENN STATE UNIV	M WEI	GSFC	D PEUQUET	NGT 5 30224	439
39	PENN STATE UNIV	M WEI	GSFC	E J BARRON	NAG 5 4553	432
39	PENN STATE UNIV	M WEI	GSFC	J VERLINDE	NGT 5 30208	439
39	PENN STATE UNIV	M WEI	GSFC	S BRANTLEY	NGT 5 30193	439
39	PENN STATE UNIV	M WEI	GSFC	T CARLSON	NAG 5 8194	433
39	PENN STATE UNIV	M WEI	HQ	BRUNES	NGT 5 30139	439
39	PENN STATE UNIV	M Y WEI	GSFC	A P BARROS	NAG 5 8856	433
39	PENN STATE UNIV	M Y WEI	GSFC	R B ALLEY	NGT 5 30171	439
39	PENN STATE UNIV	S GOGINENI	GSFC	R ALLEY	NAG 5 7776	434
39	PORTLAND STATE UNIV	J F DOWDY	MSFC	A M FRASER	NAG 8 1283	423
39	PRAIRIE VIEW A&M UNIV	M WEI	GSFC	S H SHAKIR	NAG 5 6823	462
39	PRESCOTT COLLEGE	G A SHELTON	ARC	W W ORR	NAG 2 1207	27
39	PRINCETON UNIV	D E WICKLAND	GSFC	E F WOOD	NAG 5 7297	346
39	PRINCETON UNIV	E ENGMAN	GSFC	E WOOD	NGT 5 56	348
39	PRINCETON UNIV	G ASRAR	GSFC	J L SARMIENTO	NAG 5 8591	345
39	PRINCETON UNIV	J DODGE	GSFC	E WOOD	NAG 5 6494	345
39	PRINCETON UNIV	J DODGE	GSFC	E WOOD	NAG 5 9414	347
39	PRINCETON UNIV	J DODGE	GSFC	E WOOD	NAG 5 9635	347
39	PRINCETON UNIV	M WEI	GSFC	A DOBSON	NGT 5 30341	348
39	PRINCETON UNIV	M WEI	GSFC	E F WOOD	NGT 5 50333	348
39	PRINCETON UNIV	M WEI	GSFC	E LARSON	NAG 5 8671	345
39	PRINCETON UNIV	M WEI	GSFC	G PHILANDER	NGT 5 30333	348
39	PRINCETON UNIV	M WEI	GSFC	J SARMIENTO	NGT 5 30356	348
39	PRINCETON UNIV	M WEI	GSFC	L RUSSELL	NAG 5 8676	346
39	PRINCETON UNIV	M Y WEI	GSFC	G PHILANDER	NGT 5 30134	348
39	PRINCETON UNIV	M Y WEI	GSFC	H LEVY	NGT 5 30137	348
39	PRINCETON UNIV	M Y WEI	GSFC	I M HELD	NGT 5 30156	348
39	PRINCETON UNIV	M Y WEI	GSFC	I RODRIQUEZ	NAG 5 8151	346
39	PRINCETON UNIV	P DECOLA	GSFC	D L MAUZERALL	NAG 5 9810	347
39	PRINCETON UNIV	P HOUSER	GSFC	E WOOD	NAG 5 9486	347
39	PURDUE UNIV	A TUYAHOV	GSFC	B A ENGEL	NAG 5 7954	219
39	PURDUE UNIV	D E WICKLAND	GSFC	C E BRODLEY	NAG 5 8971	218
39	PURDUE UNIV	D E WICKLAND	GSFC	D A LANGREBE	NAG 5 3975	218
39	PURDUE UNIV	J JENNER	SSC	C J JOHANNSEN	NAG13 38	219

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39	PURDUE UNIV	M Y WEI	GSFC	P B SHEPSON	NGT 5 30163	220
39	PURDUE UNIV	R MCKELLIP	SSC	C J JOHANNSEN	NAG13 00001	219
39	RICE UNIV	D E WICKLAND	GSFC	R L SASS	NAG 5 4909	464
39	ROCHESTER INST OF TECH	D L WILLIAMS	GSFC	J SCHOTT	NAG 5 3443	379
39	ROCHESTER INST OF TECH	E D PAYLOR	GSFC	A VODECEK	NAG 5 10051	379
39	RUTGERS STATE UNIV - PISCATAWAY	A JANETOS	GSFC	M ROBSON	NAG 5 7539	350
39	RUTGERS STATE UNIV - PISCATAWAY	E LINSTROM	GSFC	D HAIDVOGEL	NAG 5 9847	351
39	RUTGERS STATE UNIV - PISCATAWAY	E T ENGMAN	GSFC	R AVISSAR	NAG 5 8213	350
39	RUTGERS STATE UNIV - PISCATAWAY	J CAMPBELL	GSFC	M J BEHRENFELD	NAG 5 7437	350
39	RUTGERS STATE UNIV - PISCATAWAY	J MARRA	GSFC	M J BEHRENFELD	NAG 5 9787	351
39	RUTGERS STATE UNIV - PISCATAWAY	J MARRA	GSFC	Y GAO	NAG 5 9340	350
39	RUTGERS STATE UNIV - PISCATAWAY	J W CAMPBELL	GSFC	P G FALKOWSKI	NAG 5 6982	350
39	RUTGERS STATE UNIV - PISCATAWAY	K BERGMAN	GSFC	A ROBECK	NAG 5 9792	351
39	RUTGERS STATE UNIV - PISCATAWAY	P R HOUSER	GSFC	R AVISSAR	NAG 5 9746	351
39	RUTGERS STATE UNIV OF NJ COOK CAMPUS	K BERGMAN	GSFC	R AVISSAR	NAG 5 9359	352
39	RUTGERS STATE UNIV OF NJ COOK CAMPUS	S GOGINENI	GSFC	D J FRANCIS	NAG 5 4908	352
39	RUTGERS STATE UNIV OF NJ NEW BRUNS	M E MAIDEN	HQ	J FRANCIS	NAGW 4760	352
39	SALISH KOOTENAI COLLEGE	N K HAZENIE	GSFC	T S OLSON	NAG 5 9102	332
39	SALISH KOOTENAI COLLEGE	N KHAZENIE	GSFC	J M GOBERT	NAG 5 9368	332
39	SAN DIEGO STATE UNIV	M WEI	GSFC	A S HOPE	NGT 5 30335	56
39	SAN DIEGO STATE UNIV	M Y WEI	GSFC	R MELLORS	NAG 5 8560	56
39	SAN DIEGO STATE UNIV	R MCKELLIP	JSC	D STOW	NAG13 99017	56
39	SAN FRANCISCO STATE UNIV	J CAMPBELL	HQ	R KUDELA	NAG 5 7632	56
39	SAN FRANCISCO STATE UNIV	J W CAMPBELL	GSFC	D H ROBINSON	NAG 5 8013	56
39	SAN FRANCISCO STATE UNIV	J W MARRA	GSFC	D H ROBINSON	NAG 5 7511	56
39	SAN JOSE STATE UNIV	T MILLER	MSFC	R BORSTEIN	NAS 8 97106	58
39	SAN JOSE STATE UNIV	V VANDERBILT	ARC	P A HAMILL	NCC 2 1132	59
39	SOUTH DAKOTA SCH OF MINES & TECH	J ARNOLD	MSFC	S O FAREWELL	NAG 8 1447	453
39	SOUTH DAKOTA SCH OF MINES & TECH	M WEI	GSFC	M PRICE	NAG 5 6872	452
39	SOUTH DAKOTA SCH OF MINES & TECH	N KHAZENIE	GSFC	L A VIERLING	NAG 5 8973	453
39	SOUTH DAKOTA SCH OF MINES & TECH	R MCKELLIP	JSC	M PRICE	NAG13 99021	453
39	SOUTH DAKOTA SCH OF MINES & TECH	T GULL	GSFC	P CAMPONE	NAG 5 2950	452
39	SOUTH DAKOTA STATE UNIV	D L WILLIAMS	GSFC	D HELDER	NAG 5 3540	453
39	SOUTH DAKOTA STATE UNIV	D L WILLIAMS	GSFC	HELDER	NAG 5 3445	453
39	SOUTH DAKOTA STATE UNIV	S UNGAR	GSFC	D HELDER	NCC 5 472	453
39	SOUTHERN ILLINOIS UNIV - CARBONDALE	M WEI	GSFC	N PINTER	NGT 5 50321	204
39	ST UN NY COL-ENV SCI & FORESTRY	H CARR	SSC	P HOPKINS	NCC13 98001	379
39	ST	J F DOWDY	MSFC	D POISTER	NAG 8 1318	529
39	STANFORD UNIV	A C JANETOS	GSFC	H A MOONEY	NAG 5 7367	63
39	STANFORD UNIV	A KELLEY	MSFC	F CHANG	NCC 8 197	69
39	STANFORD UNIV	D E WICKLAND	GSFC	H A MOONEY	NAG 5 9882	65
39	STANFORD UNIV	E LINSTROM	GSFC	H ZEBKER	NAG 5 9853	65
39	STANFORD UNIV	G ASRAR	GSFC	H MOONEY	NGT 5 30018	69
39	STANFORD UNIV	J MARRA	GSFC	K ARRIGO	NAG 5 8866	64
39	STANFORD UNIV	M L IMHOFF	GSFC	M L IMHOFF	NAG 5 8563	64
39	STANFORD UNIV	M L IMHOFF	GSFC	P EHRlich	NAG 5 9760	65
39	STANFORD UNIV	M WEI	GSFC	G W ERNST	NGT 5 30380	69
39	STANFORD UNIV	M WEI	GSFC	H ZEBKER	NGT 5 30342	69
39	STANFORD UNIV	M WEI	GSFC	M Z JACOBSON	NAG 5 8645	64
39	STANFORD UNIV	M WEI	GSFC	P M VITOUSEK	NGT 5 30216	69
39	STANFORD UNIV	M WEI	GSFC	P MATSON	NGT 5 30204	69
39	STANFORD UNIV	M WEI	GSFC	P SEGALL	NAG 5 6537	63
39	STANFORD UNIV	R H THOMAS	GSFC	D ZEBKER	NAG 5 3732	62
39	STATE UNIV OF NY - ALBANY	A J TUYAHOV	GSFC	P F HOPKINS	NAG 5 9676	380
39	STATE UNIV OF NY - ALBANY	D W DEERING	GSFC	D R FRITZJARRALD	NCC 5 283	380
39	STATE UNIV OF NY - ALBANY	F G HALL	GSFC	D B FITZJARRALD	NAG 5 2242	379
39	STATE UNIV OF NY - BINGHAMTON	D E WICKLAND	GSFC	M GOEL	NAG 5 3866	380
39	STATE UNIV OF NY - STONY BROOK	B CARLSON	GSFC	GELLER	NCC 5 126	383
39	STATE UNIV OF NY - STONY BROOK	D WICKLAND	GSFC	M LERDAU	NAG 5 8601	382
39	STATE UNIV OF NY - STONY BROOK	M WEI	GSFC	D WALISER	NGT 5 50322	384
39	TEXAS A&M UNIV	D K HALL	GSFC	A KLEIN	NAG 5 9455	468
39	TEXAS A&M UNIV	J CAMPBELL	GSFC	W D NOWLIN	NAG 5 6446	467
39	TEXAS A&M UNIV	K BERGMAN	GSFC	P CHANG	NAG 5 9409	468
39	TEXAS A&M UNIV	M WEI	GSFC	T BOUTTON	NGT 5 30211	470
39	TEXAS A&M UNIV	M Y WEI	GSFC	D P BOWMAN	NAG 5 6481	467
39	TEXAS A&M UNIV	M Y WEI	GSFC	J B VALDES	NAG 5 3966	467

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39	TEXAS A&M UNIV	M Y WEI	GSFC	R ZHANG	NAG 5 8706	468
39	TEXAS A&M UNIV	S GOGINENI	GSFC	A STOESEL	NAG 5 7751	467
39	TEXAS SOUTHERN UNIV	L ARMENDARIZ	JSC	J JONES	NAG 9 974	471
39	THE SCRIPPS REASERCH INST	F E HOGE	GSFC	M VERNET	NAG 5 5191	70
39	THE SCRIPPS REASERCH INST	J DODGE	GSFC	J J SIMPSON	NAG 5 9604	70
39	THE UNIV OF CENTRAL FLORIDA	D R DELA PASCUA	KSC	C COOPER	NAG10 240	172
39	THE UNIV OF CENTRAL FLORIDA	D WICKLAND	GSFC	J WEISHAMPEL	NAG 5 6528	171
39	THE UNIV OF CENTRAL FLORIDA	M COLLINS	KSC	D C COOPER	NCC10 35	173
39	TROY STATE UNIV	D SIX	MSFC	D J BATEMAN	NAG 8 1204	4
39	TULANE UNIV	R TRAVIS	JSC	B MCKEE	NGT13 52722	236
39	TULANE UNIV	R TRAVIS	SSC	J CORBINO	NGT13 52745	237
39	U OF MD CTR FOR ENVIR SCI-CAMBRIDGE	A C JANETOS	GSFC	P R FISHER	NAG 5 6249	251
39	U OF MD CTR FOR ENVIR SCI-CAMBRIDGE	J HARDING	GSFC	L HARDING	NAG 5 6286	251
39	U OF MD CTR FOR ENVIR SCI-CAMBRIDGE	J MARRA	GSFC	R G HOOD	NAG 5 6387	251
39	U OF MD CTR FOR ENVIR SCI-CAMBRIDGE	J MARRA	GSFC	T MALONE	NAG 5 9527	251
39	U OF MD CTR FOR ENVIR SCI-CAMBRIDGE	J W CAMPBELL	GSFC	L W HARDING	NAG 5 7602	251
39	U OF MD CTR FOR ENVIR SCI-CAMBRIDGE	J W CAMPBELL	GSFC	T C MALONE	NAG 5 7455	251
39	U OF MD CTR FOR ENVIR SCI-CAMBRIDGE	S G UNGAR	GSFC	P A TOWNSEND	NCC 5 493	252
39	UNIV HOUSTON-HOUSTON	E K GIBSON	JSC	H S CHAFETZ	NAG 9 1103	473
39	UNIV OF MINN	D E WICKLAND	GSFC	P B REICH	NAG 5 7917	317
39	UNIV OF MINN	E T ENGMAN	GSFC	K J DAVIS	NAG 5 8736	318
39	UNIV OF MINN	F HASLER	GSFC	T E BURK	NAG 5 2698	318
39	UNIV OF MINN	G GUTMAN	GSFC	J PASTOR	NAG 5 9312	316
39	UNIV OF MINN	M KURYLO	GSFC	R W CARR	NAG 5 8869	318
39	UNIV OF MINN	M WEI	GSFC	M BAUER	NAG 5 6609	317
39	UNIV OF MINN	M Y WEI	GSFC	E FOULFOULA-GEORGI	NAG 5 6191	317
39	UNIV OF MINN	M Y WEI	GSFC	S HOBIE	NGT 5 30111	320
39	UNIV OF MINN	R MCKELLIP	SSC	M BAUER	NAG13 99022	319
39	UNIV OF MINN	T M SANDERS	GRC	D H PUI	NAG 3 2187	316
39	UNIV	S GOGINENI	GSFC	G L DANA	NAG 5 7870	335
39	UNIV OF AKRON	T M SCOTT	GRC	D SIEBERT	NAG 3 2444	410
39	UNIV OF ALABAMA - BIRMINGHAM	E PAYLOR	GSFC	L DELUCAS	NAG 5 8786	6
39	UNIV OF ALABAMA - HUNTSVILLE	D L PIERCE	GSFC	J DIMMOCK	NAG 5 5273	9
39	UNIV OF ALABAMA - HUNTSVILLE	M JASINSKI	GSFC	R MCNIDER	NAG 5 7542	10
39	UNIV OF ALABAMA - HUNTSVILLE	M Y WEI	GSFC	D M WELCH	NGT 5 30168	16
39	UNIV OF ALABAMA - HUNTSVILLE	R GREENWOOD	MSFC	R MCNIDER	NCC 8 141	15
39	UNIV OF ALABAMA - HUNTSVILLE	R J OLIVERSEN	GSFC	W PACIESAS	NAG 5 9045	12
39	UNIV OF ALABAMA - HUNTSVILLE	S GOGINENI	GSFC	R T MCNIDER	NAG 5 7844	10
39	UNIV OF ALABAMA - HUNTSVILLE	T BRAKE	GSFC	R WELCH	NAS 5 31718	14
39	UNIV OF ALASKA - ANCHORAGE	G ASRAR	GSFC	K PETERSON	NGT 5 30039	18
39	UNIV OF ALASKA - ANCHORAGE	J F DOWDY	MSFC	J A OLOFSSON	NAG 8 1282	18
39	UNIV OF ALASKA - FAIRBANKS		GSFC	M O JEFFRIES	NAG 5 8549	20
39	UNIV OF ALASKA - FAIRBANKS	A JANETOS	GSFC	D MCGUIRE	NAG 5 6275	19
39	UNIV OF ALASKA - FAIRBANKS	D E WICKLAND	GSFC	A D MCGUIRE	NAG 5 9859	20
39	UNIV OF ALASKA - FAIRBANKS	D E WICKLAND	GSFC	D CHAPIN	NAG 5 6590	19
39	UNIV OF ALASKA - FAIRBANKS	D WICKLAND	GSFC	C L WILLIAMS	NAG 5 7507	20
39	UNIV OF ALASKA - FAIRBANKS	E LUNDSTROM	GSFC	L MCNUTT	NAG 5 9915	20
39	UNIV OF ALASKA - FAIRBANKS	E LUNDSTROM	GSFC	S R OKKONEN	NAG 5 7603	20
39	UNIV OF ALASKA - FAIRBANKS	E T ENGMAN	GSFC	S LI	NAG 5 8614	20
39	UNIV OF ALASKA - FAIRBANKS	G GUTMAN	GSFC	C WILLIAMS	NAG 5 9315	20
39	UNIV OF ALASKA - FAIRBANKS	M WEI	GSFC	S F CHAPIN	NGT 5 50324	21
39	UNIV OF ALASKA - FAIRBANKS	P J ONDRUS	GSFC	N AVAILBLE	NAS 5 98129	21
39	UNIV OF ALASKA - FAIRBANKS	R H THOMAS	GSFC	D JEFFRIES	NAG 5 4170	19
39	UNIV OF ALASKA - FAIRBANKS	S GOGINENI	GSFC	M O JEFFRIES	NAG 5 7299	20
39	UNIV OF ALASKA - FAIRBANKS	S H GOGINENI	GSFC	C LINGLE	NAG 5 4068	18
39	UNIV OF ALASKA - FAIRBANKS	S K HALL	GSFC	C S BENSON	NCC 5 379	21
39	UNIV OF ALASKA - FAIRBANKS	S P GOGINENI	GSFC	D FREYMUELLER	NAG 5 4369	19
39	UNIV OF ARIZONA	A TUYAHOV	GSFC	C F HUTCHINSON	NAG 5 9174	35
39	UNIV OF ARIZONA	A TUYAHOV	GSFC	D YOUNG	NAG 5 8157	34
39	UNIV OF ARIZONA	C LEE	GSFC	C F HUTCHINSON	NAG 5 8341	34
39	UNIV OF ARIZONA	D E WICKLAND	GSFC	K E SCHAUDT	NAG 5 7249	32
39	UNIV OF ARIZONA	D E WICKLAND	GSFC	W SHUTTLEWORTH	NAG 5 3854	29
39	UNIV OF ARIZONA	D L WILLIAMS	GSFC	C J THOME	NAG 5 3436	28
39	UNIV OF ARIZONA	E T ENGMAN	GSFC	J W SHUTTLEWORTH	NAG 5 8214	34
39	UNIV OF ARIZONA	E WOOD	GSFC	S SOROOSHIAN	NAG 5 8503	34
39	UNIV OF ARIZONA	E Y WOOD	GSFC	S SOROOSHAIN	NAG 5 3640	28

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39	UNIV OF ARIZONA	J PRIVETTE	GSFC	A HAUTE	NAG 5 8660	34
39	UNIV OF ARIZONA	K H BERGMAN	GSFC	R FU	NAG 5 6967	31
39	UNIV OF ARIZONA	M WEI	GSFC	M W WALLENDORF	NAG 5 10007	37
39	UNIV OF ARIZONA	M WEI	GSFC	R E DICKSON	NGT 5 30013	40
39	UNIV OF ARIZONA	M Y WEI	GSFC	C E GLASS	NGT 5 30148	40
39	UNIV OF ARIZONA	M Y WEI	GSFC	C HUTCHINSON	NGT 5 30140	40
39	UNIV OF ARIZONA	M Y WEI	GSFC	R A SCHOWENGERDT	NAG 5 6542	31
39	UNIV OF ARIZONA	M Y WEI	GSFC	R DICKINSON	NAG 5 4480	30
39	UNIV OF ARIZONA	P R HOUSER	GSFC	W SHUTTLEWORTH	NAG 5 9796	37
39	UNIV OF ARIZONA	R H THOMAS	GSFC	V R BAKER	NAG 5 4124	29
39	UNIV OF ARIZONA	R H THOMAS	HQ	V R BAKER	NAGW 4925	38
39	UNIV OF ARIZONA	R SCHIEFFER	GSFC	S ROROOSHIAN	NAG 5 8502	34
39	UNIV OF ARIZONA	S G UNGAR	GSFC	S F BIGGAR	NCC 5 460	39
39	UNIV OF ARIZONA	S G UNGER	GSFC	A R HUETE	NCC 5 478	39
39	UNIV OF ARIZONA	S GOGINENI	GSFC	R BALES	NAG 5 6779	31
39	UNIV OF ARKANSAS - LITTLE ROCK	P MOGAN	KSC	A J ADAMS	NGT10 52618	42
39	UNIV OF ARKANSAS MAIN CMPS-FAYETEV	J BOYCE	GSFC	P BENOIT	NAG 5 9496	42
39	UNIV OF CALIFORNIA - BERKELEY	A J TUYAHOV	GSFC	J M HELLERSTEIN	NAG 5 7174	75
39	UNIV OF CALIFORNIA - BERKELEY	A NURRIDDIN	HQ	O E GRANGER	NGT 5 50223	82
39	UNIV OF CALIFORNIA - BERKELEY	D E WICKLAND	GSFC	D BALDOCCHI	NAG 5 8510	76
39	UNIV OF CALIFORNIA - BERKELEY	D E WICKLAND	GSFC	W SILVER	NCC 5 352	80
39	UNIV OF CALIFORNIA - BERKELEY	D WICKLAND	GSFC	I FUNG	NAG 5 9514	78
39	UNIV OF CALIFORNIA - BERKELEY	E T ENGMAN	GSFC	X LIANG	NAG 5 8737	77
39	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	D G AMUNDSON	NGT 5 30044	81
39	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	M POWER	NGT 5 30006	81
39	UNIV OF CALIFORNIA - BERKELEY	G GUTMAN	GSFC	P GONG	NAG 5 9231	77
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	D BRIMHALL	NAG 5 6515	74
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	I CHAPELA	NGT 5 30351	81
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	I FUNG	NGT 5 30361	81
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	R C COHEN	NGT 5 30219	81
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	T L BENNING	NGT 5 30183	81
39	UNIV OF CALIFORNIA - BERKELEY	M WEI	GSFC	W SILVER	NGT 5 50331	82
39	UNIV OF CALIFORNIA - BERKELEY	M Y WEI	GSFC	F S CHAPIN	NGT 5 50216	82
39	UNIV OF CALIFORNIA - BERKELEY	M Y WEI	GSFC	W L SILVER	NGT 5 30141	81
39	UNIV OF CALIFORNIA - BERKELEY	N KHAZENIE	GSFC	A GOULD	NAG 5 9317	77
39	UNIV OF CALIFORNIA - BERKELEY	P DECOLA	GSFC	A GOLDSTEIN	NAG 5 7173	75
39	UNIV OF CALIFORNIA - BERKELEY	S G UNGAR	GSFC	P GONG	NCC 5 492	80
39	UNIV OF CALIFORNIA - BERKELEY	D E WICKLAND	GSFC	S L USTIN	NAG 5 7216	83
39	UNIV OF CALIFORNIA - DAVIS	D E WICKLAND	GSFC	S USTIN	NAG 5 9360	84
39	UNIV OF CALIFORNIA - DAVIS	D L JAN	HQ	S D COLLINS	NAG 9 1048	84
39	UNIV OF CALIFORNIA - DAVIS	M WEI	GSFC	C ANASTASIO	NGT 5 30187	86
39	UNIV OF CALIFORNIA - DAVIS	M WEI	GSFC	S USTIN	NGT 5 30352	86
39	UNIV OF CALIFORNIA - DAVIS	V C VANDERBILT	ARC	S L USTIN	NCC 2 5343	85
39	UNIV OF CALIFORNIA - DAVIS	V C VANDERBILT	ARC	S USTIN	NCC 2 5223	85
39	UNIV OF CALIFORNIA - DAVIS	A NURRIDDIN	HQ	R J RICE	NGT 5 50226	89
39	UNIV OF CALIFORNIA - IRVINE	D DEERING	GSFC	S TRUMBORE	NCC 5 336	89
39	UNIV OF CALIFORNIA - IRVINE	D W DEERING	GSFC	M L GOULDEN	NCC 5 280	89
39	UNIV OF CALIFORNIA - IRVINE	D WICKLAND	GSFC	S TRUMBORE	NAG 5 7301	88
39	UNIV OF CALIFORNIA - IRVINE	M KURYLO	GSFC	D R BLAKE	NAG 5 8935	88
39	UNIV OF CALIFORNIA - IRVINE	M W WEI	GSFC	R J CICERONE	NGT 5 50325	90
39	UNIV OF CALIFORNIA - IRVINE	M WEI	GSFC	G MAGNUSDOTTIR	NGT 5 30203	89
39	UNIV OF CALIFORNIA - LOS ANGELES	E LINDSTROM	GSFC	J MCWILLIAMS	NAG 5 9860	97
39	UNIV OF CALIFORNIA - LOS ANGELES	K BERGMAN	GSFC	D J NEELIN	NAG 5 9358	96
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	A ELDERING	NAG 5 8812	96
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	L SMITH	NGT 5 30338	98
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	R P TURCO	NGT 5 30215	98
39	UNIV OF CALIFORNIA - LOS ANGELES	M WEI	GSFC	R TURCO	NGT 5 50332	99
39	UNIV OF CALIFORNIA - LOS ANGELES	M Y WEI	GSFC	K LIU	NGT 5 30133	98
39	UNIV OF CALIFORNIA - LOS ANGELES	P R HOUSER	GSFC	Y XUE	NAG 5 9713	97
39	UNIV OF CALIFORNIA - RIVERSIDE	E T ENGMAN	GSFC	B P MOHANTY	NAG 5 8882	99
39	UNIV OF CALIFORNIA - SAN DIEGO	D E WICKLAND	GSFC	D D KEELING	NAG 5 3528	100
39	UNIV OF CALIFORNIA - SAN DIEGO	D E WICKLANDS	GSFC	R F KEELING	NAG 5 7837	104
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	D MILLER	NAG 5 6497	103
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	D STAMMER	NAG 5 8623	105
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	D STAMMER	NAG 5 8901	105
39	UNIV OF CALIFORNIA - SAN DIEGO	E LINDSTROM	GSFC	P NILER	NAG 5 8322	105

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39	UNIV OF CALIFORNIA - SAN DIEGO	E LINSTROM	GSFC	A MILLER	NAG 5 9788	106
39	UNIV OF CALIFORNIA - SAN DIEGO	E PAYLOR	GSFC	J ROADS	NAG 5 8780	105
39	UNIV OF CALIFORNIA - SAN DIEGO	G SOFFEN	GSFC	J B MINSTER	NAS 5 33019	107
39	UNIV OF CALIFORNIA - SAN DIEGO	J A YODER	GSFC	R FROUIN	NAG 5 6202	102
39	UNIV OF CALIFORNIA - SAN DIEGO	J CAMPBELL	GSFC	B G MITCHELL	NAG 5 8170	104
39	UNIV OF CALIFORNIA - SAN DIEGO	J CAMPBELL	GSFC	R F KEELING	NAG 5 6668	103
39	UNIV OF CALIFORNIA - SAN DIEGO	J DODGE	GSFC	J J SIMPSON	NAG 5 9721	106
39	UNIV OF CALIFORNIA - SAN DIEGO	J W CAMPBELL	GSFC	D STRAMSKI	NAG 5 7100	103
39	UNIV OF CALIFORNIA - SAN DIEGO	J YODER	GSFC	B MITCHELL	NAG 5 6559	103
39	UNIV OF CALIFORNIA - SAN DIEGO	M WEI	GSFC	G MITCHELL	NAG 5 6595	103
39	UNIV OF CALIFORNIA - SAN DIEGO	M Y WEI	GSFC	M WAHLEN	NGT 5 30150	109
39	UNIV OF CALIFORNIA - SAN DIEGO	P DECOLA	GSFC	R F WEISS	NAG 5 8180	104
39	UNIV OF CALIFORNIA - SANTA BARBARA	A ASRAR	HQ	R C FROHN	NAGW 5241	114
39	UNIV OF CALIFORNIA - SANTA BARBARA	A C JANETOS	GSFC	J ESTES	NAG 5 6259	112
39	UNIV OF CALIFORNIA - SANTA BARBARA	A J TUYOHOV	GSFC	D E ESTES	NAG 5 3620	111
39	UNIV OF CALIFORNIA - SANTA BARBARA	D DEERING	GSFC	J MELACK	NCC 5 281	114
39	UNIV OF CALIFORNIA - SANTA BARBARA	D E WICKLAND	GSFC	D A ROBERTS	NAG 5 7248	112
39	UNIV OF CALIFORNIA - SANTA BARBARA	D W DEERING	GSFC	O A CHADWICK	NCC 5 282	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	E KRIENS	GSFC	C GAUTIER	NAG 5 31374	114
39	UNIV OF CALIFORNIA - SANTA BARBARA	E LINDSTROM	GSFC	J C DOZIER	NAG 5 9844	114
39	UNIV OF CALIFORNIA - SANTA BARBARA	E T ENGMAN	GSFC	J SHI	NAG 5 8616	113
39	UNIV OF CALIFORNIA - SANTA BARBARA	E T ENGMAN	GSFC	T DUNNE	NAG 5 8396	113
39	UNIV OF CALIFORNIA - SANTA BARBARA	G A SHELTON	ARC	D A ROBERTS	NAG 2 1140	110
39	UNIV OF CALIFORNIA - SANTA BARBARA	J MARRA	GSFC	D A SIEGEL	NAG 5 9818	113
39	UNIV OF CALIFORNIA - SANTA BARBARA	J W CAMPBELL	GSFC	D A SIEGEL	NAG 5 8319	113
39	UNIV OF CALIFORNIA - SANTA BARBARA	J YODER	GSFC	D SIEGEL	NAG 5 6288	112
39	UNIV OF CALIFORNIA - SANTA BARBARA	J YODER	GSFC	R SMITH	NAG 5 6434	112
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	D A ROBERTS	NGT 5 50327	116
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	D A SIEGEL	NGT 5 30194	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	D SIEGEL	NAG 5 6478	112
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	K C CLARKE	NGT 5 30201	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	MERTES	NGT 5 30173	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	O CHADWICK	NGT 5 30357	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	T DUNNE	NGT 5 30225	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	M WEI	GSFC	T DUNNE	NGT 5 30332	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	M Y WEI	GSFC	N M MAHOWALD	NAG 5 8680	113
39	UNIV OF CALIFORNIA - SANTA BARBARA	N KHAZENIE	GSFC	C GAUTIER	NAG 5 4963	112
39	UNIV OF CALIFORNIA - SANTA BARBARA	P DECOLA	GSFC	N M MAHOWALD	NAG 5 9671	113
39	UNIV OF CALIFORNIA - SANTA BARBARA	S G UNGAR	GSFC	D A ROBERTS	NCC 5 496	115
39	UNIV OF CALIFORNIA - SANTA BARBARA	S GOGINENI	GSFC	J C DOZIER	NAG 5 4814	112
39	UNIV OF CALIFORNIA - SANTA BARBARA	T JANETOS	GSFC	T DUNNE	NAG 5 6120	112
39	UNIV OF CALIFORNIA - SANTA CRUZ	D J DES MARAIS	ARC	G H RAU	NCC 2 5339	118
39	UNIV OF CALIFORNIA - SANTA CRUZ	J MARRA	GSFC	R KUDELA	NAG 5 8855	117
39	UNIV OF CALIFORNIA - SANTA CRUZ	J W MARRA	GSFC	R KUDELA	NAG 5 8750	117
39	UNIV OF CALIFORNIA - SANTA CRUZ	M Y WEI	GSFC	R S ANDERSON	NGT 5 30112	119
39	UNIV OF CINCINNATI	D E WICKLAND	GSFC	R C FROHN	NAG 5 7098	412
39	UNIV OF CINCINNATI	T SCOTT	GRC	D BECK	NAG 3 2437	412
39	UNIV OF COLORADO - BOULDER	A C JANETOS	GSFC	D A WESSMAN	NAG 5 6134	132
39	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	D URBAN	NGT 5 50221	144
39	UNIV OF COLORADO - BOULDER	D C WICKLAND	GSFC	G P ASNER	NAG 5 8320	137
39	UNIV OF COLORADO - BOULDER	D E WICKLAND	GSFC	A GOETZ	NAG 5 4447	130
39	UNIV OF COLORADO - BOULDER	D E WICKLAND	GSFC	A TOWNSEND	NAG 5 7402	135
39	UNIV OF COLORADO - BOULDER	D J KAHLE	GSFC	W EMERY	NAG 5 3847	129
39	UNIV OF COLORADO - BOULDER	D L PIERCE	WFF	W EMERY	NAG 5 5274	131
39	UNIV OF COLORADO - BOULDER	D L WILLIAMS	GSFC	A GOETZ	NAG 5 3437	128
39	UNIV OF COLORADO - BOULDER	D L WILLIAMS	GSFC	T SCAMBOS	NAG 5 3438	129
39	UNIV OF COLORADO - BOULDER	D WICKLAND	GSFC	A GOETZ	NAG 5 8912	138
39	UNIV OF COLORADO - BOULDER	E ENGMAN	GSFC	D YATES	NAG 5 7541	135
39	UNIV OF COLORADO - BOULDER	E H LINDSTROM	GSFC	T ZHANG	NAG 5 4171	129
39	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	BORN	NAG 5 6725	133
39	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	J MASLANIK	NAG 5 9861	140
39	UNIV OF COLORADO - BOULDER	E LINDSTROM	GSFC	J STROEVE	NAG 5 9602	140
39	UNIV OF COLORADO - BOULDER	E T ENGMAN	GSFC	R QUALLS	NAG 5 8534	137
39	UNIV OF COLORADO - BOULDER	E T ENGMAN	GSFC	T ZHANG	NAG 5 8615	137
39	UNIV OF COLORADO - BOULDER	G ASRAR	HQ	D WEISMAN	NGT 5 30026	143
39	UNIV OF COLORADO - BOULDER	G C GUTMIN	GSFC	D WEBB	NAG 5 6051	132

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39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	D EMERY	NAG 5 6521	132
39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	D FOWLER	NAG 5 6666	133
39	UNIV OF COLORADO - BOULDER	J C DODGE	GSFC	D L ARMSTRONG	NAG 5 6636	133
39	UNIV OF COLORADO - BOULDER	J DODGE	GSFC	G R SCHARFEN	NAG 5 9722	140
39	UNIV OF COLORADO - BOULDER	J DODGE	GSFC	P J WEBSTER	NAG 5 9404	139
39	UNIV OF COLORADO - BOULDER	J DODGE	GSFC	R ARMSTRONG	NAG 5 9412	139
39	UNIV OF COLORADO - BOULDER	J L PRIVETTE	GSFC	D WEBSTER	NGT 5 30023	143
39	UNIV OF COLORADO - BOULDER	J L PRIVETTE	GSFC	N KHATIB	NGT 5 93	143
39	UNIV OF COLORADO - BOULDER	J ZWALLY	GSFC	K STEFFEN	NAG 5 7466	135
39	UNIV OF COLORADO - BOULDER	J ZWALLY	GSFC	K STEFFEN	NAG 5 9692	140
39	UNIV OF COLORADO - BOULDER	K H BERGMAN	GSFC	D EVANS	NAG 5 7021	134
39	UNIV OF COLORADO - BOULDER	L MILAN	GSFC	J GILLE	NAS 5 97046	141
39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	G ASNER	NGT 5 30348	144
39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	J WAHR	NGT 5 50320	145
39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	L M AVALLONE	NGT 5 30209	144
39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	M A TOLBERT	NGT 5 30363	144
39	UNIV OF COLORADO - BOULDER	M WEI	GSFC	V K GUPTA	NAG 5 3848	129
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	A GOETZ	NAG 5 6651	133
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	A H LYNCH	NGT 5 30170	143
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	B TOON	NGT 5 30155	143
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	G ASNER	NAG 5 8709	138
39	UNIV OF COLORADO - BOULDER	M Y WEI	GSFC	M TOLBERT	NGT 5 30136	143
39	UNIV OF COLORADO - BOULDER	N KHAZENIE	GSFC	H SPETZLER	NAG 5 6162	132
39	UNIV OF COLORADO - BOULDER	P HAUSER	GSFC	M SERREZE	NAG 5 9568	139
39	UNIV OF COLORADO - BOULDER	P HOUSER	GSFC	J WAHR	NAG 5 9450	139
39	UNIV OF COLORADO - BOULDER	Q E BARKER	GSFC	R G BARRY	NAS 5 98070	141
39	UNIV OF COLORADO - BOULDER	R H THOMAS	GSFC	D STEFFEN	NAG 5 4218	130
39	UNIV OF COLORADO - BOULDER	R H THOMAS	GSFC	T SCAMBOS	NAG 5 4179	129
39	UNIV OF COLORADO - BOULDER	R THOMAS	GSFC	D STEFFEN	NAG 5 4248	130
39	UNIV OF COLORADO - BOULDER	S G UNGAR	GSFC	A F GOETZ	NCC 5 458	142
39	UNIV OF COLORADO - BOULDER	S G UNGAR	GSFC	G P ASNER	NCC 5 480	142
39	UNIV OF COLORADO - BOULDER	S G UNGAR	GSFC	G P ASNER	NCC 5 481	142
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	A LYNCH	NAG 5 6820	133
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	D ARMSTONG	NAG 5 4906	131
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	D CURRY	NAG 5 4901	131
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	D MASLANIK	NAG 5 4907	131
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	J WAHR	NAG 5 6875	133
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	R G BARRY	NAG 5 4440	130
39	UNIV OF COLORADO - BOULDER	S GOGINENI	GSFC	T A SCAMBOS	NAG 5 7760	136
39	UNIV OF CONNECTICUT	J W MARRA	GSFC	C ROESLER	NAG 5 7654	147
39	UNIV OF CONNECTICUT	M Y WEI	GSFC	E N ANAGOSTOU	NAG 5 8836	147
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39	UNIV OF FLORIDA	G ASRAR	GSFC	C HOLLING	NGT 5 30022	177
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39	UNIV OF NEW HAMPSHIRE - DURHAM	S GOGINENI	GSFC	W SALAS	NAG 5 8452	341
39	UNIV OF NEW MEXICO-ALBUQUERQUE	A C JANETOS	GSFC	C N DAHM	NAG 5 6999	357
39	UNIV OF NEW MEXICO-ALBUQUERQUE	B L WHITE	HQ	T L COLEMAN	NCCW 87	359
39	UNIV OF NEW MEXICO-ALBUQUERQUE	H CARR	SSC	P HOPKINS	NCC13 98002	359
39	UNIV OF NORTH ALABAMA	N KHAZENIE	GSFC	W R STRONG	NAG 5 9085	18
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	D DEERING	GSFC	R BILSBORROW	NCC 5 295	395
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	D E WICKLAND	GSFC	S C WHALEN	NAG 5 6278	395
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	D W DEERING	GSFC	C S MARTENS	NCC 5 337	395
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	D WICKLAND	GSFC	A MOODY	NAG 5 8583	395
39	UNIV OF NORTH CAROLINA - CHAPEL HILL	P DECOLA	GSFC	R E MILLER	NAG 5 8924	395
39	UNIV OF NORTH CAROLINA AT WILMNGTN	J W CAMPBELL	GSFC	S D EMSLIE	NAG 5 7629	21
39	UNIV OF NORTH CAROLINA AT WILMNGTN	J W CAMPBELL	GSFC	S D EMSLIE	NAG 5 8114	395

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39	UNIV OF NORTH DAKOTA	A J TUYAHOV	GSFC	G A SEIELSTAD	NAG 5 3616	396
39	UNIV OF NORTH DAKOTA	C YUHAS	GSFC	M POELLET	NCC 5 503	397
39	UNIV OF NORTH DAKOTA	C YUHAS	GSFC	M POELLOT	NCC 5 193	397
39	UNIV OF NORTH DAKOTA	D E WICKLAND	GSFC	C A GRAINGER	NAG 5 7950	396
39	UNIV OF NORTH DAKOTA	F HASLER	GSFC	C A WOOD	NAG 5 2696	396
39	UNIV OF OKLAHOMA - NORMAN	M Y WEI	GSFC	K CRAWFORD	NGT 5 30151	419
39	UNIV OF OKLAHOMA - NORMAN	M Y WEI	GSFC	T WILLIAMS	NAG 5 6717	418
39	UNIV OF OREGON - EUGENE	M WEI	GSFC	P BARTLEIN	NGT 5 50107	423
39	UNIV OF PENNSYLVANIA	M Y WEI	GSFC	H DAI	NGT 5 30165	441
39	UNIV OF PITTSBURGH	N KHAZENIE	GSFC	A A PANAH	NAG 5 6164	442
39	UNIV OF PITTSBURGH	N KHAZENIE	GSFC	A I PANAH	NAG 5 9051	442
39	UNIV OF PUERTO RICO - MAYAGUEZ	J W CAMPBELL	GSFC	J CORREDOR	NAG 5 7198	539
39	UNIV OF PUERTO RICO - MAYAGUEZ	M WEI	GSFC	A J CRUZ	NGT 5 30364	540
39	UNIV OF PUERTO RICO-RIO PIEDRAS	N KHAZENIE	GSFC	I L APONTE-AVELLANE	NAG 5 9050	540
39	UNIV OF RHODE ISLAND	E LINDSTROM	GSFC	P CORNILLON	NAG 5 6320	447
39	UNIV OF RHODE ISLAND	E T ENGMAN	GSFC	Y WANG	NAG 5 8739	447
39	UNIV OF RHODE ISLAND	J CAMPBELL	GSFC	J A YODER	NAG 5 6645	447
39	UNIV OF RHODE ISLAND	J DODGE	GSFC	J YODER	NAG 5 9724	448
39	UNIV OF RHODE ISLAND	J DODGE	GSFC	P CORNILLON	NAG 5 9633	448
39	UNIV OF RHODE ISLAND	J YODER	GSFC	P M STEGMANN	NAG 5 6560	447
39	UNIV OF RHODE ISLAND	M WEI	GSFC	Y WANG	NAG 5 8829	448
39	UNIV OF SAN DIEGO	M MAIDEN	GSFC	J J SIMPSON	NCC 5 308	119
39	UNIV OF SOUTH ALABAMA	R ARNOLD	MSFC	M CARPENTER	NCC 8 161	18
39	UNIV OF SOUTH CAROLINA-COLUMBIA	A JOYCE	JSC	J JENSEN	NGT13 52712	452
39	UNIV OF SOUTH CAROLINA-COLUMBIA	D WICKLAND	GSFC	V LAKSHMI	NAG 5 9233	451
39	UNIV OF SOUTH CAROLINA-COLUMBIA	E T ENGMAN	GSFC	V LAKSHMI	NAG 5 8875	451
39	UNIV OF SOUTH CAROLINA-COLUMBIA	P T HOUSER	GSFC	V LAKSHMI	NAG 5 8837	451
39	UNIV OF SOUTH CAROLINA-COLUMBIA	R MCKELLIP	JSC	D C COWEN	NAG13 27	452
39	UNIV OF SOUTH FLORIDA	D L WILLIAMS	GSFC	KARGER	NAG 5 3446	180
39	UNIV OF SOUTH FLORIDA	E K GIBSON	JSC	L L ROBBINS	NAG 9 1104	180
39	UNIV OF SOUTH FLORIDA	J DODGE	GSFC	F E MULLER-KARGER	NAG 5 8175	180
39	UNIV OF SOUTH FLORIDA	J MARRA	GSFC	F MULLER-KARGER	NAG 5 6448	180
39	UNIV OF SOUTH FLORIDA	J MARRA	GSFC	J WALSH	NAG 5 6449	180
39	UNIV OF SOUTH FLORIDA	M WEI	GSFC	F MULLER-KARGER	NGT 5 30354	181
39	UNIV OF SOUTH FLORIDA	M Y WEI	GSFC	G T MITHCHUM	NGT 5 30143	181
39	UNIV OF SOUTH FLORIDA	M Y WEI	GSFC	J R BROOKS	NGT 5 30159	181
39	UNIV OF SOUTHERN CALIFORNIA	J CAMPBELL	GSFC	D BOGUCKI	NAG 5 8309	121
39	UNIV OF SOUTHERN CALIFORNIA	J MARRA	GSFC	D CAPONE	NAG 5 8884	121
39	UNIV OF SOUTHERN CALIFORNIA	J MARRA	GSFC	R ITURRIAGA	NAG 5 9740	122
39	UNIV OF SOUTHERN CALIFORNIA	J W CAMPBELL	GSFC	B H JONES	NAG 5 8445	121
39	UNIV OF SOUTHERN MAINE	N KHAZENIE	GSFC	S M LOCKE	NAG 5 9128	238
39	UNIV OF TENNESSEE - CHATTANOOGA	N KHAZENIE	GSFC	B W BENSON	NAG 5 9031	456
39	UNIV OF TENNESSEE - KNOXVILLE	B V GUYNES	MSFC	G J BUNICK	NAG 8 1568	457
39	UNIV OF TEXAS - AUSTIN	E LINDSTROM	GSFC	B TAPLEY	NAG 5 6346	479
39	UNIV OF TEXAS - AUSTIN	E T ENGMAN	GSFC	J S FAMIGLIETTI	NAG 5 8611	480
39	UNIV OF TEXAS - AUSTIN	G ASRAR	GSFC	J FAMIGLIETTI	NGT 5 30008	484
39	UNIV OF TEXAS - AUSTIN	G ASRAR	HQ	J FAMINGLIETTI	NAGW 5240	482
39	UNIV OF TEXAS - AUSTIN	K D LULLA	JSC	W T FOWLER	NAG 9 912	481
39	UNIV OF TEXAS - AUSTIN	M RIENECKER	GSFC	J S FAMIGLIETTI	NAG 5 8290	480
39	UNIV OF TEXAS - AUSTIN	M WEI	GSFC	J FAMIGLIETTI	NAG 5 6395	479
39	UNIV OF TEXAS - AUSTIN	M WEI	GSFC	J S FAMIGLIETTI	NGT 5 30162	484
39	UNIV OF TEXAS - AUSTIN	N KHAZENIE	GSFC	D BYRD	NAG 5 9138	481
39	UNIV OF TEXAS - AUSTIN	N KHAZENIE	GSFC	W T FOWLER	NAG 5 6300	479
39	UNIV OF TEXAS - AUSTIN	R FITZGERALD	GSFC	B TAPLEY	NAS 5 97213	483
39	UNIV OF TEXAS - AUSTIN	S G UNGAR	GSFC	W A WHITE	NCC 5 463	483
39	UNIV OF TEXAS - AUSTIN	S GOGINENI	GSFC	D D BLANKENSHIP	NAG 5 7910	480
39	UNIV OF TEXAS - DALLAS	M WEI	GSFC	R STERN	NAG 5 6534	485
39	UNIV OF TEXAS - EL PASO	J BRADEN	DFRC	V HARDER	NAG 5 6163	485
39	UNIV OF TEXAS AT SAN ANTONIO	J C SAAER	KSC	M D DESAI	NAG10 155	487
39	UNIV OF TOLEDO	D E WICKLAND	GSFC	K P CZAJKOWSKI	NAG 5 8052	415
39	UNIV OF TOLEDO	M Y WEI	GSFC	K P CZAJKOWSKI	NAG 5 8671	415
39	UNIV OF TOLEDO	T M SCOTT	GRC	D P CZAJKOWSKI	NAG 3 2409	415
39	UNIV OF UTAH	D DEERING	GSFC	J EHLENGER	NCC 5 297	489
39	UNIV OF UTAH	D E WICKLAND	GSFC	J R EHLENGER	NAG 5 7447	489
39	UNIV OF UTAH	E ENGMAN	GSFC	D TARBOTON	NAG 5 7521	489
39	UNIV OF UTAH	J C DODGE	GSFC	K JEZEK	NAG 5 8550	489

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39	UNIV OF UTAH	M WEI	GSFC	R R FORSTER	NGT 5 30184	489
39	UNIV OF UTAH	S GOGINENI	GSFC	R FORESTER	NAG 5 7871	489
39	UNIV OF VERMONT	V C VANDERBILT	ARC	D P LIVINGSTON	NCC 2 5196	493
39	UNIV OF VERMONT	V C VANDERBILT	ARC	G P LIVINGSTON	NCC 2 5342	493
39	UNIV OF VERMONT	V C VANDERBILT	ARC	G P LIVINGSTON	NCC 2 5399	493
39	UNIV OF VIRGINIA	A C JANETOS	GSFC	C O JUSTICE	NAG 5 8162	509
39	UNIV OF VIRGINIA	A C JANETOS	GSFC	P DESANKER	NAG 5 6384	508
39	UNIV OF VIRGINIA	A JANETOS	GSFC	H SHUGART	NAG 5 6043	507
39	UNIV OF VIRGINIA	A JANETOS	GSFC	T SMITH	NAG 5 6351	508
39	UNIV OF VIRGINIA	C J TUCKER	GSFC	C O JUSTICE	NAG 5 8838	509
39	UNIV OF VIRGINIA	C TUCKER	GSFC	C JUSTICE	NAG 5 7417	508
39	UNIV OF VIRGINIA	D E WICKLAND	GSFC	H H SHUGART	NAG 5 7956	508
39	UNIV OF VIRGINIA	D E WICKLAND	GSFC	H H SHUGART	NAG 5 9357	510
39	UNIV OF VIRGINIA	D E WICKLAND	GSFC	W R EMANUEL	NAG 5 8612	509
39	UNIV OF VIRGINIA	D WICKLAND	GSFC	C O JUSTICE	NAG 5 7862	508
39	UNIV OF VIRGINIA	D WICKLAND	GSFC	H H SHUGART	NAG 5 6279	507
39	UNIV OF VIRGINIA	G C GUTMANS	GSFC	C O JUSTICE	NAG 5 4368	507
39	UNIV OF VIRGINIA	G GUTMAN	GSFC	P V DESANKER	NAG 5 9289	510
39	UNIV OF VIRGINIA	H K RAMPRIYAN	GSFC	G D EMMITT	NAG 5 7033	508
39	UNIV OF VIRGINIA	J GRANT	GSFC	A HOWARD	NAG 5 8902	509
39	UNIV OF VIRGINIA	J PRIVETTE	GSFC	R J SWAPP	NAG 5 7266	508
39	UNIV OF VIRGINIA	M Y WEI	GSFC	J D ALBERTSON	NAG 5 8670	509
39	UNIV OF VIRGINIA	STOCKEY	GSFC	M GARSTANG	NAG 5 1961	506
39	UNIV OF WASHINGTON	A C JANETOS	GSFC	J RICHEY	NAG 5 4712	519
39	UNIV OF WASHINGTON	A T CHANG	GSFC	L TSANG	NAG 5 4739	519
39	UNIV OF WASHINGTON	A T CHANG	GSFC	L TSANG	NAG 5 9835	523
39	UNIV OF WASHINGTON	D W DEERING	GSFC	J E RICHEY	NCC 5 345	524
39	UNIV OF WASHINGTON	D WICKLAND	GSFC	D LETTENMAIER	NAG 5 7300	520
39	UNIV OF WASHINGTON	E LUNDSTROM	GSFC	A T JESSUP	NAG 5 7526	521
39	UNIV OF WASHINGTON	E LUNDSTROM	GSFC	K KELLY	NAG 5 8296	521
39	UNIV OF WASHINGTON	J DODGE	GSFC	D LETTENMAIER	NAG 5 9416	522
39	UNIV OF WASHINGTON	J DODGE	GSFC	R LINDSAY	NAG 5 6493	520
39	UNIV OF WASHINGTON	J R BLOCKER	MSFC	M BAKER	NAG 8 1512	523
39	UNIV OF WASHINGTON	J W MARRA	GSFC	B FROST	NAG 5 7604	521
39	UNIV OF WASHINGTON	J ZWALLY	GSFC	C F RAYMOND	NAG 5 9906	523
39	UNIV OF WASHINGTON	K PARTINGTON	GSFC	H STERN	NAG 5 9854	523
39	UNIV OF WASHINGTON	K PATRINGTON	GSFC	D A ROTHROCK	NAG 5 9334	522
39	UNIV OF WASHINGTON	M WEI	GSFC	D P LETTENMAIER	NGT 5 30220	525
39	UNIV OF WASHINGTON	M WEI	GSFC	J M WALLACE	NGT 5 30195	525
39	UNIV OF WASHINGTON	M WEI	GSFC	S R EMERSON	NGT 5 30213	525
39	UNIV OF WASHINGTON	M WEI	GSFC	S WARREN	NGT 5 50334	526
39	UNIV OF WASHINGTON	M WEI	GSFC	T HINCKLEY	NGT 5 30343	525
39	UNIV OF WASHINGTON	M Y WEI	GSFC	J E RICHEY	NGT 5 30149	525
39	UNIV OF WASHINGTON	M Y WEI	GSFC	J E RICHEY	NGT 5 30161	525
39	UNIV OF WASHINGTON	M Y WEI	GSFC	T M HINCKLEY	NGT 5 30157	525
39	UNIV OF WASHINGTON	N KHAZENIE	GSFC	J M DECOSMO	NAG 5 6297	519
39	UNIV OF WASHINGTON	P HOUSER	GSFC	D LETTENMAIER	NAG 5 9454	522
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	A SCHWEIGER	NAG 5 7847	521
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	D A ROTHROCK	NAG 5 4375	518
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	D ROTHROCK	NAG 5 6388	520
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	D WINEBRENNER	NAG 5 6819	520
39	UNIV OF WASHINGTON	S GOGINENI	GSFC	S MARTIN	NAG 5 6894	520
39	UNIV OF WISCONSIN - MADISON	B N HOLBEN	GSFC	E PRINS	NAG 5 4751	531
39	UNIV OF WISCONSIN - MADISON	D DEERING	GSFC	J FOLEY	NCC 5 335	536
39	UNIV OF WISCONSIN - MADISON	D E WICKLAND	GSFC	J A FOLEY	NAG 5 3513	530
39	UNIV OF WISCONSIN - MADISON	D E WICKLAND	GSFC	J FOLEY	NAG 5 7214	532
39	UNIV OF WISCONSIN - MADISON	D E WICKLAND	GSFC	S T GOWER	NAG 5 7298	532
39	UNIV OF WISCONSIN - MADISON	D E WICKLAND	GSFC	S T GOWER	NAG 5 8069	533
39	UNIV OF WISCONSIN - MADISON	D L PIERCE	GSFC	S ACKERMAN	NAG 5 5272	531
39	UNIV OF WISCONSIN - MADISON	D W DEERING	GSFC	J M NORMAN	NCC 5 294	536
39	UNIV OF WISCONSIN - MADISON	D WICKLAND	GSFC	J FOLLEY	NAG 5 9452	534
39	UNIV OF WISCONSIN - MADISON	E KREINS	GSFC	W L SMITH	NAG 5 31377	536
39	UNIV OF WISCONSIN - MADISON	E T ENGMAN	GSFC	D MACKAY	NAG 5 8554	533
39	UNIV OF WISCONSIN - MADISON	E T ENGMAN	GSFC	J A FOLEY	NAG 5 8597	533
39	UNIV OF WISCONSIN - MADISON	G SOFFEN	GSFC	C BENTLEY	NAG 5 33015	536

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39	UNIV OF WISCONSIN - MADISON	J DODGE	GSFC	F BRETHERTON	NAG 5 7192	532
39	UNIV OF WISCONSIN - MADISON	J DODGE	GSFC	F P BRETHERTON	NAG 5 4974	531
39	UNIV OF WISCONSIN - MADISON	J DODGE	GSFC	G DIAK	NAG 5 9436	534
39	UNIV OF WISCONSIN - MADISON	J DODGE	GSFC	R J FOX	NAG 5 8250	533
39	UNIV OF WISCONSIN - MADISON	M WEI	GSFC	D MACKAY	NAG 5 6535	531
39	UNIV OF WISCONSIN - MADISON	M WEI	GSFC	G R DIAK	NAG 5 3493	530
39	UNIV OF WISCONSIN - MADISON	M Y WEI	GSFC	H F WANG	NGT 5 30146	537
39	UNIV OF WISCONSIN - MADISON	M Y WEI	GSFC	W BRINKMANN	NGT 5 30160	537
39	UNIV OF WISCONSIN - MADISON	N KHAZENIE	GSFC	S S LIMAYE	NAG 5 9028	534
39	UNIV OF WISCONSIN - MADISON	N LAL	GSFC	J W PERCIVAL	NAG 5 2694	530
39	UNIV OF WISCONSIN - MADISON	S GOGINENI	GSFC	J R KEY	NAG 5 8625	533
39	UNIV OF WYOMING	D E WICKLAND	GSFC	E HUNT	NAG 5 3861	538
39	UNIV OF WYOMING	M WEI	GSFC	W REINER	NGT 5 30350	539
39	UTAH STATE UNIV	J F DOWDY	MSFC	F BAKER	NGT 8 52866	492
39	UTAH STATE UNIV	M WEI	GSFC	R GILLIES	NAG 5 6598	490
39	UTAH STATE UNIV	S PEARSON	MSFC	J R DENNISON	NAS 8 98221	491
39	VA POLYTECH INST & ST UNIV	M WEI	GSFC	R H WYNNE	NAG 5 6539	514
39	VA POLYTECH INST & ST UNIV	M WEI	GSFC	R H WYNNE	NGT 5 30198	516
39	VALDOSTA STATE UNIV	J F DOWDY	MSFC	M LEAKE	NAG 8 1264	192
39	VALPARISO UNIV	J C DODGE	GSFC	G A MORRIS	NAG 5 8490	222
39	WASHINGTON STATE UNIV	J LOIACANO	GSFC	G MOUNT	NAS 5 00177	526
39	WEST VIRGINIA UNIV	D LONGEDDY	MSFC	J G WELLS	NAG 8 1496	527
39	WEST VIRGINIA UNIV	J POE	MSFC	T MELOY	NAG 8 1494	527
39	WHEELING JESUIT UNIV	M Y WEI	GSFC	R J MEYERS	NAG 5 8628	528
39	WHEELING JESUIT UNIV	N KHAZENIE	GSFC	R MYERS	NAG 5 6961	528
39	WOODS HOLE OCEANOGRAPHIC INST	A C JANETOS	GSFC	H M SOSIK	NAG 5 7538	301
39	WOODS HOLE OCEANOGRAPHIC INST	J MARRA	GSFC	D J MCGILLICUDDY	NAG 5 6455	301
39	WOODS HOLE OCEANOGRAPHIC INST	J W CAMPBELL	GSFC	H M SOSIK	NAG 5 7445	301
39	WOODS HOLE OCEANOGRAPHIC INST	M WEI	GSFC	H SOSIK	NGT 5 30206	302
39	WOODS HOLE OCEANOGRAPHIC INST	S GOGINENI	GSFC	R A KRISHFIELD	NAG 5 7770	301
39	YALE UNIV	G GUTMAN	GSFC	R SMITH	NAG 5 9316	150
39	YALE UNIV	J DODGE	GSFC	M ASHTON	NAG 5 9437	150
41	ALABAMA A&M UNIV	L CHOU	MSFC	G S LIAW	NAG 8 1626	2
41	ALABAMA A&M UNIV	L FOSTER	MSFC	G S KUAB	NAG 8 1365	1
41	ARIZONA STATE UNIV	A CHAIT	GRC	K D SQUIRES	NAG 3 2081	22
41	ARIZONA STATE UNIV	C D WIESEMAN	LARC	A CHATTOPADYAY	NAG 1 1988	21
41	ARIZONA STATE UNIV	D R AMBUR	LARC	A CHATTOPADHYAY	NAG 1 2283	22
41	ARIZONA STATE UNIV	F H SCHITZ	ARC	V L WELLS	NGT 2 52204	25
41	ARIZONA STATE UNIV	H MIURA	ARC	A CHATTOPADHYAY	NAG 2 908	22
41	BETHUNE - COOKMAN COLLEGE	S DUTCZAK	KSC	G W BECKLES	NAG10 195	163
41	BOWLING GREEN STATE UNIV	J L DOLCE	GRC	S BALLARD	NAS 3 99202	397
41	BROWN UNIV	H L ATKINS	LARC	C SHU	NAG 1 2070	444
41	BROWN UNIV	P C MURPHY	LARC	A E PEARSON	NAG 1 2201	444
41	CALIFORNIA INST OF TECH	J H STARNES	GSFC	W G KNAUSS	NAG 1 1975	43
41	CALIFORNIA INST OF TECH	M B TISCHER	ARC	D J BIEZAD	NAG 2 1316	43
41	CALIFORNIA INST OF TECH	T S GATES	LARC	W G KNAUSS	NAG 1 1780	42
41	CALIFORNIA INST OF TECH	Y C CHO	ARC	M GHARIB	NAG 2 1087	43
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	J ZUK	ARC	D W HALL	NCC 2 5392	52
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	L DUKE	DFRC	D BIEZARD	NAG 4 142	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	M B TISCHER	ARC	D BIEZAD	NAG 2 1092	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	M B TISCHER	ARC	D BIEZAD	NCC 2 983	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	M B TISCHER	ARC	D J BIEZAD	NAG 2 1169	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	M TISCHER	ARC	D J BIEZAD	NCC 2 1149	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	R RAY	DFRC	T W CARPENTER	NAG 4 101	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	S ATKINS	ARC	S HOCKADAY	NAG 2 1386	51
41	CALIFORNIA POLYTECH STATE U-SAN LUIS	Y M RIZK	ARC	R M CUMMINGS	NCC 2 5279	51
41	CALIFORNIA ST	K GUPTA	DFRC	W E MORTENSEN	NAG 4 171	52
41	CALIFORNIA STATE UNIV - FRESNO	J BRADEN	DFRC	S MAHANTY	NAG 4 153	52
41	CALIFORNIA STATE UNIV - FRESNO	J BRADEN	DFRC	S MAHANTY	NAG 4 172	52
41	CALIFORNIA STATE UNIV - LOS ANGELES	E L DUKE	DFRC	T ADENIKA-MORROW	NAG 4 127	52
41	CALIFORNIA STATE UNIV - LOS ANGELES	J BRADEN	DFRC	L - HSIA	NAG 4 151	53
41	CALIFORNIA STATE UNIV - LOS ANGELES	K GUPTA	DFRC	C WU	NAG 4 174	53
41	CALIFORNIA STATE UNIV - LOS ANGELES	K GUPTA	DFRC	M MIRMIRANI	NAG 4 175	53
41	CALIFORNIA STATE UNIV - LOS ANGELES	K K GUPTA	DFRC	M MIRMIRANI	NAG 4 136	53
41	CALIFORNIA STATE UNIV-BAKERSFIELD	K SHY	DFRC	K L NYBERG	NAG 4 140	55

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41	CARNEGIE - MELLON UNIV	M B TISCHER	ARC	C E THORPE	NAG 2 1276	424
41	CARNEGIE - MELLON UNIV	R T BIEDRON	LARC	O GHATTAS	NAG 1 2090	424
41	CASE WESTERN RESERVE UNIV	D NG	GRC	D HAZONY	NAG 3 2243	398
41	CASE WESTERN RESERVE UNIV	K K GUPTA	DFRC	R D QUINN	NGT 4 52420	400
41	CASE WESTERN RESERVE UNIV	M POTAPCZUK	GRC	E RESHOTKO	NAG 3 2286	398
41	CASE WESTERN RESERVE UNIV	S M ARNOLD	GRC	R M AIKEN	NCC 3 464	399
41	CHRISTOPHER NEWPORT UNIV	T E PINELLI	LARC	R CATON	NAG 1 2219	493
41	CHRISTOPHER NEWPORT UNIV	T E PINELLI	LARC	W B WILLIAMS	NAG 1 2112	493
41	CITY UNIV OF NY CITY COLLEGE	D O DAVIS	GRC	Y ANDREPOULOS	NAG 3 2163	360
41	CITY UNIV OF NY CITY COLLEGE	K J BREISACHER	GRC	P P HO	NAG 3 2074	360
41	CITY UNIV OF NY CITY COLLEGE	S M JOSHI	LARC	K SOBEL	NAG 1 2028	359
41	CLARK ATLANTA UNIV	T S GATES	LARC	D R VEAZIE	NCC 1 341	182
41	CLARKSON UNIV	C C CHAMIS	GRC	D MINNETYAN	NAG 3 2393	361
41	CLARKSON UNIV	C C CHAMIS	GRC	D MINNETYAN	NAG 3 2394	361
41	CLARKSON UNIV	C S YAO	LARC	M N GLAUSER	NGT 1 52214	362
41	CLARKSON UNIV	J JUANG	LARC	R F SCHMIT	NGT 1 52222	362
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41	PENN STATE UNIV	M W NIXON	LARC	E C SMITH	NGT 1 52109	438
41	PENN STATE UNIV	M W NIXON	LARC	F S GHANDI	NAG 1 2050	429
41	PENN STATE UNIV	R D BUEHRLE	LARC	V W SPARROW	NCC 1 329	437
41	PENN STATE UNIV	R D BUEHRLE	LARC	V W SPARROW	NCC 1 382	437
41	PENN STATE UNIV	R R ANTOLIFF	LARC	P J MORRIS	NAG 1 2147	429
41	PENN STATE UNIV	S M JOSHI	LARC	A RAY	NCC 1 249	437
41	PENN STATE UNIV	T GUO	GRC	A RAY	NAG 3 2448	431
41	PENN STATE UNIV	T NORUM	LARC	P K MCLAUGHLIN	NGT 1 52191	438
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41	PRAIRIE VIEW A&M UNIV	D GUPTA	DFRC	D K KIRBY	NAG 4 210	462
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41	PRINCETON UNIV	A NURRIDIN	GSFC	L PAGE	NGT 5 50033	348
41	PRINCETON UNIV	A NURRIDIN	HQ	M YAMADA	NGT 5 50085	348
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41	PURDUE UNIV	J R SCOTT	GRC	A S LYRINTZIS	NAG 3 2085	217
41	PURDUE UNIV	K J KACYNSKI	GRC	S H COLLICOTT	NAG 3 1766	217
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41	STANFORD UNIV	D G MURRI	LARC	I M KROO	NAG 1 2056	61
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41	STANFORD UNIV	L L GREEN	LARC	I KROO	NCC 1 253	66
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41	SYRACUSE UNIV	D A POVINELLI	GRC	D LAGRAFF	NAG 3 2419	385
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41	UNIV OF AKRON	J SCOTT	GRC	K KREIDER	NCC 3 765	411
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41	UNIV OF ARIZONA	B A SINGER	LARC	H F FASEL	NGT 1 52206	40
41	UNIV OF ARIZONA	D R AMBUR	LARC	E MADENCI	NAG 1 2317	27
41	UNIV OF ARIZONA	G A RAICHE	ARC	K R SRIDHAR	NCC 2 5385	39
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41	UNIV OF ARIZONA	J H STARNES	LARC	E MADENCI	NAG 1 2041	27
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41	UNIV OF CALIFORNIA - BERKELEY	F CARADONNA	ARC	O SAVAS	NCC 2 5388	80
41	UNIV OF CALIFORNIA - BERKELEY	M BRENNER	DFRC	A PACKARD	NAG 4 124	71
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41	UNIV OF CALIFORNIA - BERKELEY	R DONNELLY	GSFC	S KAHN	NAS 5 31429	79
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41	UNIV OF CALIFORNIA - SANTA BARBARA	K GUPTA	SSC	J C BRUCH	NGT 4 52407	115
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41	UNIV OF MARYLAND - COLLEGE PARK	M B TISCHER	ARC	W S LEVINE	NAG 2 1311	252
41	UNIV OF MARYLAND - COLLEGE PARK	M CONCHA	GSFC	M J LEWIS	NAG 5 9890	264
41	UNIV OF MARYLAND - COLLEGE PARK	M S BURRELL	GSFC	M GAVRILAS	NAG 5 9151	262
41	UNIV OF MARYLAND - COLLEGE PARK	P KOLODZIEJ	ARC	M J LEWIS	NCC 2 1129	266
41	UNIV OF MARYLAND - COLLEGE PARK	R A STRAWN	ARC	F SCHMITZ	NAG 2 1405	252
41	UNIV OF MARYLAND - COLLEGE PARK	R R TACINA	GRC	A K GUPTA	NAG 3 2337	253
41	UNIV OF MARYLAND - COLLEGE PARK	S HUGHES	GSFC	E M ATKINS	NAG 5 9961	265
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41	UNIV OF MARYLAND - COLLEGE PARK	T STENGLE	GSFC	W FOURNEY	NAS 5 99211	265
41	UNIV OF MARYLAND - COLLEGE PARK	W G WARMBRODT	ARC	I CHOPRA	NAG 2 1329	252
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41	UNIV OF MISSOURI - ROLLA	C C WEY	GRC	P D WHITEFIELD	NAG 3 2185	326
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41	UNIV OF MISSOURI - ROLLA	C R MCCLINTON	LARC	D W RIGGINS	NAG 1 2167	326
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41	UNIV OF NEW MEXICO-ALBUQUERQUE	R D JOSLIN	LARC	C R TRUMAN	NAG 1 2018	356
41	UNIV OF NEW ORLEANS	A JOYCE	SSC	Y TRAYHAM	NGT13 52719	237
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41	UNIV OF NOTRE DAME	D ASHPIS	GRC	P C CORKE	NCC 3 775	221
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41	UNIV OF NOTRE DAME	J B ANDERS	LARC	F O THOMAS	NAG 1 1987	220
41	UNIV OF NOTRE DAME	J B ANDERS	LARC	F O THOMAS	NAG 1 2179	220
41	UNIV OF NOTRE DAME	J B ANDERS	LARC	R C NELSON	NCC 1 395	221
41	UNIV OF NOTRE DAME	J C ROSS	ARC	F O THOMAS	NCC 2 1014	221
41	UNIV OF NOTRE DAME	J H STARNES, JR.	LARC	E CORONA	NAG 1 2214	220
41	UNIV OF NOTRE DAME	J R SCOTT	GRC	D ATASSI	NCC 3 770	221
41	UNIV OF OKLAHOMA - NORMAN	R J GUNDERMAN	GRC	R K CRANE	NAS 3 26957	419
41	UNIV OF OTAGO	I BARSHI	ARC	D O	NAG 2 1395	541
41	UNIV OF PITTSBURGH	G C HORNER	LARC	W CLARK	NGT 1 52188	443
41	UNIV OF PITTSBURGH	G C HORNER	LARC	W W CLARK	NGT 1 52186	443
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41	UNIV OF SOUTH FLORIDA	J A DIGGS	KSC	R E HENNING	NAG10 204	180
41	UNIV OF SOUTHERN CALIFORNIA	B L BERRIER	LARC	R F BLACKWELDER	NCC 1 276	122
41	UNIV OF SOUTHERN CALIFORNIA	J R CURZ	LARC	P B LISSAMAN	NAG 1 1996	119
41	UNIV OF SOUTHERN COLORADO	A E MOTLEY	LARC	L M GARRETT	NGT 1 52209	146
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41	UNIV OF VIRGINIA	C E GLASS	GSFC	J C MCDANIEL JR	NGT 1 52247	511
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41	UNIV OF WYOMING	D M DRIVER	ARC	J W NAUGHTON	NCC 2 5315	539
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41	UTAH STATE UNIV	K LUU	GSFC	R FULLMER	NAG 5 9290	491
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41	VIRGINIA COMMONWEALTH UNIV	D E ASHPIS	GRC	D J DORNEY	NCC 3 845	516
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42	IOWA STATE UNIV	J M HANSON	MSFC	P LU	NAG 8 1289	223
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42	UNIV OF TEXAS - AUSTIN	E L CHRISTIANSEN	JSC	E P FAHRENTHOLD	NAG 9 1244	482
42	UNIV OF TEXAS - AUSTIN	E M BRADEN	JSC	R BISHOP	NAG 9 1225	482
42	UNIV OF TEXAS - AUSTIN	F E LUMPKIN	JSC	D B GOLDSTEIN	NAG 9 1117	482
42	UNIV OF TEXAS - AUSTIN	G C BLACKBURN	JSC	G E LIGHTSEY	NAG 9 1124	482
42	UNIV OF TEXAS - AUSTIN	G C BLACKBURN	JSC	G E LIGHTSEY	NAG 9 1187	482
42	UNIV OF TEXAS - AUSTIN	J D WAGENKNECHT	JSC	R H BISHOP	NAG 9 1075	482
42	UNIV OF TEXAS - AUSTIN	J W BELL	JSC	G LIGHTSEY	NAG 9 1189	482
42	UNIV OF TEXAS - AUSTIN	J W BELL	JSC	R H BISHOP	NAG 9 1076	482
42	UNIV OF WASHINGTON	E P SMITH	GSFC	B MARGON	NAG 5 9324	522
42	UNIV OF WISCONSIN - MADISON	G MUCKLOW	GSFC	J W PERCIVAL	NAG 5 8588	533
42	UNIV OF WISCONSIN - MADISON	R SPAGNUOLO	GSFC	J W PERCIVAL	NAG 5 7026	532
42	UTAH STATE UNIV	M D VANEK	LARC	J ULWICK	NAS 1 20467	491
42	VA POLYTECH INST & ST UNIV	D C FOLTA	GSFC	C D HALL	NAG 5 7657	514
43	AUBURN UNIV	D BRITTON	GRC	B K TATARCHUK	NAG 3 2142	3
43	CALIFORNIA INST OF TECH	G A ZIMMERK	GRC	G T SMEDLEY	NAS 3 27283	49
43	CASE WESTERN RESERVE UNIV	G W HUNTER	GRC	C C LIU	NCC 3 706	400
43	CASE WESTERN RESERVE UNIV	G W HUNTER	GRC	C C LIU	NCC 3 772	400
43	CASE WESTERN RESERVE UNIV	G W HUNTER	GRC	C LIU	NCC 3 679	400
43	CLARK ATLANTA UNIV	S A ALTERNOVITZ	GRC	D OKHIO	NAG 3 2292	182
43	CLEVELAND STATE UNIV	S R LEVINE	GRC	J MASNOVI	NCC 3 759	403
43	CLEVELAND STATE UNIV	W MORALES	GRC	D E GATICA	NCC 3 857	403
43	CLEVELAND STATE UNIV	W MORALES	GRC	D W BALL	NCC 3 844	402
43	CORNELL UNIV	B S SINGH	GRC	P H STEEN	NAG 3 1854	368
43	CORNELL UNIV	H K NAHRA	GRC	D KOCH	NGT 3 52362	375
43	CORNELL UNIV	P DOTY	MSFC	N ZABARAS	NAG 8 1671	374



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43	FISS UNIV	G HUNTER	GRC	D E COLLINS	NAG 3 2298	454
43	FLORIDA A&M UNIV	A JOYCE	SSC	S PANCHOLY	NAG13 43	166
43	FLORIDA STATE UNIV	P H RHODES	MSFC	B R LOCKE	NAG 8 1163	170
43	HAMPTON UNIV	G B NORTHAM	LARC	J F AKYURTLU	NAG 1 1636	496
43	HOWARD UNIV	H L BELVIN	LARC	W E COLLINS	NAG 1 2019	156
43	JOHNS HOPKINS UNIV	B S SINGH	GRC	K J STEBE	NAG 3 1923	240
43	JOHNS HOPKINS UNIV	B SINGH	GRC	M E PAULATIS	NAG 3 1954	240
43	NORTH CAROLINA A&T STATE UNIV	G ALLEN	KSC	G WHITE	NAG10 201	391
43	OHIO STATE UNIV	F J MONTEGANI	GRC	P K DUTTA	NGT 3 52363	409
43	POLYTECH UNIV - BROOKLYN	C TALLEY	MSFC	A S MEYERSON	NAG 8 1455	377
43	PRAIRIE VIEW A&M UNIV	A BEAM	MSFC	Z HAQUE	NAG 8 1644	462
43	RENSSELAER POLYTECH INST	J SKARDA	GRC	P C WAGNER	NAG 3 2383	378
43	SOUTHERN UNIV & A&M COLLEGE	A J HATCH	ARC	S K TRIVEDI	NAG 2 1015	235
43	SYRACUSE UNIV	H K NAHRA	GRC	A S SANGANI	NAG 3 1853	385
43	TUSKEGEE UNIV	M COLLINS	KSC	N VAHDAT	NAG10 253	5
43	UNIV OF ARIZONA	R S BAIRD	JSC	K R SRIDHAR	NAG 9 1175	38
43	UNIV OF CALIFORNIA - DAVIS	F P CHIARAMONTE	GRC	B L POWELL	NAG 3 2153	83
43	UNIV OF CALIFORNIA - SANTA BARBARA	B S SINGH	GRC	L G LEAL	NAG 3 2115	111
43	UNIV OF CALIFORNIA - SANTA BARBARA	D MONTEGANI	GRC	S BANERJEE	NGT 3 52317	115
43	UNIV OF COLORADO - BOULDER	B S SINGH	GRC	R H DAVIS	NAG 3 2116	127
43	UNIV OF DELAWARE	B S SINGH	GRC	E W KALER	NAG 3 1955	151
43	UNIV OF FLORIDA	M LONERGAN	KSC	C SEGAL	NAG10 285	176
43	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	F J MONTEGANI	GRC	J S MOORE	NGT 3 52345	214
43	UNIV OF KENTUCKY	M MEYYA	ARC	S SINNOT	NCC 2 5383	231
43	UNIV OF MICHIGAN - ANN ARBOR	F J MONTEGANI	GRC	A ATREYA	NGT 3 52365	313
43	UNIV OF PENNSYLVANIA	A NURRIDIN	HQ	D A HAMMER	NGT 5 50210	441
43	UNIV OF PENNSYLVANIA	D GRIFFIN	GRC	D A HAMMER	NAG 3 2111	440
43	UNIV OF RHODE ISLAND	M M WEISLOGEL	GRC	A BOSE	NAG 3 2129	447
43	UNIV OF ROCHESTER	G A SOFFEN	GSFC	R H HEIST	NGT 5 104	386
43	UNIV OF TOLEDO	J FISHER	ARC	M ABRAHAM	NCC 2 5215	416
43	UNIV OF TOLEDO	M RABINOWITZ	GRC	K L DEWITT	NAG 3 2338	415
43	VANDERBILT UNIV	A NURRIDIN	HQ	R BAYUZICK	NGT 5 50209	460
43	VANDERBILT UNIV	J E FINN	ARC	M D LEVAN	NCC 2 992	459
43	VANDERBILT UNIV	J E FINN	ARC	M D LEVAN	NCC 2 1127	459
43	VANDERBILT UNIV	J E FINN	ARC	M D LEVAN	NCC 2 5384	460
43	VIRGINIA COMMONWEALTH UNIV	J S HARRISON	LARC	G E WNEK	NAG 1 2302	516
43	YALE UNIV	B S SINGH	GRC	D E ROSNER	NAG 3 1951	148
43	YALE UNIV	B SINGH	GRC	M LOEWENBERG	NAG 3 1935	148
43	YALE UNIV	F MONTEGANI	GRC	M LOEWENBERG	NGT 3 52347	150
44	POLYTECH UNIV - BROOKLYN	J DOWDY	MSFC	F LIN	NGT 8 52879	377
45	ALABAMA A&M UNIV	D J LARKIN	GRC	D ILA	NAG 3 2302	1
45	ALABAMA A&M UNIV	J LARKIN	GRC	D ILA	NAG 3 2123	1
45	ALABAMA A&M UNIV	J MONTENEGRO	MSFC	A BOND	NAG 8 1497	1
45	ALCORN STATE UNIV	W C ROEH	JSC	N W MOSES	NAG 9 1135	321
45	ARIZONA STATE UNIV	G C BARBER	LARC	C A BALANIS	NAG 1 1082	21
45	ARIZONA STATE UNIV	T X NGUYEN	LARC	C BALANIS	NAG 1 1781	21
45	AUBURN UNIV	C SHAFFER	MSFC	I HRBUD	NAG 8 1717	3
45	AUBURN UNIV	D K HALL	MSFC	S A MERRYMAN	NAG 8 98249	3
45	AUBURN UNIV	J R ARNOLD	MSFC	M L WALLER	NGT 1 52205	4
45	BROWN UNIV	F J MONTEGANI	GRC	G P CRAWFORD	NGT 3 52369	447
45	CAPITOL COLLEGE	D MENCHAN	GSFC	J JARREL	NAG 5 7342	239
45	CASE WESTERN RESERVE UNIV	L G MATUS	GRC	M MEHREGANY	NAG 3 2204	398
45	CASE WESTERN RESERVE UNIV	L G MATUS	GRC	M MEHREGANY	NCA 3 201	399
45	CITY UNIV OF NY CITY COLLEGE	H SHAW	GSFC	K SHUM	NAG 5 7160	360
45	CLARK ATLANTA UNIV	S A ALTERNOVITZ	GRC	M D WILLIAMS	NAG 3 1973	181
45	CLEMSON UNIV - CLEMSON	G BUCKINGHAM	KSC	D DAWSON	NGT10 52611	450
45	CLEMSON UNIV - CLEMSON	J F DOWDY	MSFC	J N GOWDY	NGT 8 52858	450
45	CLEVELAND STATE UNIV	J F SOEDER	GRC	Z GAO	NCC 3 699	403
45	CLEVELAND STATE UNIV	R E JONES	GRC	P P CHU	NAG 3 2040	401
45	CLEVELAND STATE UNIV	R KERCZEWSKI	GRC	V K KONANGI	NCC 3 764	403
45	CLEVELAND STATE UNIV	T M WALLETT	GRC	V K KONANGI	NCC 3 595	402
45	EMBRY-RIDDLE AERONAUTICAL UNIV	P G NEUDECK	GRC	A HELFRICK	NCC 3 685	163
45	FLORIDA A&M UNIV	F MCKENZIE	KSC	B A HARVEY	NAG10 289	166
45	FLORIDA A&M UNIV	G C RYBICKI	GRC	S M DURBIN	NAG 3 1971	165
45	FLORIDA ATLANTIC UNIV	T P BIZON	GRC	W E GLENN	NAG 3 2023	166
45	GEORGE WASHINGTON UNIV	L L THOMPSON	GSFC	N CHAUHAN	NAG 5 4294	154

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45	HAMPTON UNIV	F B BECK	LARC	A O OLADIPUPO	NCC 1 366	499
45	HAMPTON UNIV	F D BECK	LARC	A O OLADIPUPO	NCC 1 231	499
45	HARVEY MUDD COLLEGE	D L IVERSON	ARC	C L DYM	NCC 2 5293	55
45	HOWARD UNIV	D F NOGA	GRC	A RUBARI	NAG 3 2030	156
45	HOWARD UNIV	D F NOGA	GRC	D RUBAAI	NAG 3 2287	156
45	HOWARD UNIV	J A POWELL	GRC	M G SPENCER	NAG 3 2173	156
45	HOWARD UNIV	J L DOLCE	GRC	J A MOMOH	NAG 3 1978	156
45	HOWARD UNIV	L VITERNA	GRC	J A MOMOH	NAG 3 1931	156
45	HOWARD UNIV	M D KANKAM	GRC	A RUBAAI	NCC 3 571	157
45	JOHNS HOPKINS UNIV	D C VANDEMARK	GSFC	D R THOMPSON	NAG 5 5138	242
45	JOHNS HOPKINS UNIV	D C VANDEMARK	WFF	D R THOMPSON	NAG 5 5301	242
45	JOHNS HOPKINS UNIV	H C SHAW	GSFC	D B KHURGIN	NAG 5 8841	246
45	JOHNS HOPKINS UNIV	L ZEIGENFUSS	GSFC	J KANG	NAS 5 00166	249
45	JOHNS HOPKINS UNIV	P J LUERS	GSFC	R CONDE	NAG 5 8852	246
45	JOHNS HOPKINS UNIV	P LUERS	GSFC	R CONDE	NAG 5 8403	245
45	JOHNS HOPKINS UNIV	P LUERS	GSFC	R F CONDE	NAG 5 9456	248
45	JOHNS HOPKINS UNIV	P MILLAR	GSFC	M DAVIDSON	NAG 5 2232	241
45	MORGAN STATE UNIV	B MOTT	GSFC	C J SCOTT	NAG 5 7136	250
45	MORGAN STATE UNIV	J PIEDMEIER	GSFC	D WHITE	NAG 5 9895	251
45	NEW JERSEY INST OF TECH	E WONG	GRC	D P DHAWAN	NAG 3 2459	343
45	NEW MEXICO STATE UNIV - LAS CRUCES	N SCHULTZ	GSFC	A BAKER	NAS 5 32252	356
45	NORTH CAROLINA A&T STATE UNIV	A J HATCH	ARC	M R SALAMI	NAG 2 6028	390
45	NORTH CAROLINA A&T STATE UNIV	E B CLARK	GRC	D YU	NAG 3 1835	390
45	NORTH CAROLINA A&T STATE UNIV	P CORONADO	GSFC	D S VAINSTEIN	NAG 5 7158	390
45	NORTHWESTERN UNIV	M S BURRELL	GSFC	P KUMAR	NGT 5 90	204
45	OHIO STATE UNIV	D M WILT	GRC	D A RINGEL	NAG 3 2215	405
45	OHIO STATE UNIV	F J MONTEGANI	GRC	S A RINGEL	NGT 3 52355	408
45	OHIO STATE UNIV	M GILREATH	LARC	N D BURNSIDE	NAS 1 98102	408
45	OHIO STATE UNIV	R ROMANOFISKY	GRC	G WASHINGTON	NCC 3 733	408
45	OHIO UNIV	P E POINSATTE	GRC	T A SKIDMORE	NAG 3 2385	409
45	OHIO UNIV	R W WILLS	LARC	J M RANKIN	NAG 1 2036	409
45	OLD DOMINION UNIV	A J ZUCKERWAR	LARC	S A ZAHORIAN	NAG 1 2123	502
45	OLD DOMINION UNIV	G J KOCH	LARC	C M FITZGERALD	NGT 1 52213	505
45	OLD DOMINION UNIV	K J MOELLER	LARC	C F BUNTING	NAG 1 1982	501
45	OLD DOMINION UNIV	R J DEYOUNG	LARC	H SAYID ELE	NGT 1 52211	504
45	OLD DOMINION UNIV	S K KAHNG	LARC	S ALBIN	NAG 1 1995	502
45	OREGON STATE UNIV	G ADAMOVSKY	GRC	T K PLANT	NAG 3 2483	420
45	PENN STATE UNIV	D M LE VINE	GSFC	C RUT	NAG 5 4018	431
45	PRAIRIE VIEW A&M UNIV	M D KANKAM	GRC	J O ATTIA	NAG 3 2065	462
45	RICE UNIV	D L JAN	JPL	F K TITTLE	NAG 9 1049	465
45	ROWAN UNIV	H D ROSE	GRC	A J MARCHESE	NCC 3 643	349
45	SOUTHERN METHODIST UNIV	E KIST, JR.	LARC	Z CELIK-BUTLER	NAS 1 99100	466
45	STANFORD UNIV	H W JONES	ARC	A C FRASER-SMITH	NCC 2 5354	86
45	STANFORD UNIV	M S BURRELL	GSFC	U UMRAN	NGT 5 92	89
45	TENNESSEE STATE UNIV	R LAWRENCE	GSFC	D E ROGERS	NGT 5 90013	455
45	TEXAS A&M UNIV	A PARKER JR.	DFRC	S EMBABI	NAG 4 106	467
45	TEXAS A&M UNIV	C LIVINGSTON	HQ	F R BEST	NAGW 1194	468
45	TEXAS A&M UNIV-KINGSVILLE	K L HAMES	JSC	S W PARK	NAG 9 1093	471
45	TEXAS TECH UNIV	L R PINERO	GRC	E A O	NAG 3 2005	472
45	THE CATHOLIC UNIV OF AMERICA	L PURVES	GSFC	C C NGUYEN	NAG 5 780	158
45	THE UNIV OF CENTRAL FLORIDA	M C BAILEY	LARC	C G CHRISTODOULOU	NAG 1 1917	171
45	TUSKEGEE UNIV	D C FERGUSON	GRC	C V DORESWAMY	NCC 3 726	6
45	TUSKEGEE UNIV	S A ALTEROVITZ	GRC	K K DAS	NAG 3 2127	5
45	UNIV HOUSTON-HOUSTON	T JEFFCOAT	JSC	D E BORING	NAG 9 892	473
45	UNIV OF MINN	B H KENNY	GRC	P MOHAN	NAG 3 2468	316
45	UNIV OF MINN	R M BUTTON	GRC	N MOHAN	NCC 3 811	320
45	UNIV OF AKRON	R J ACOSTA	GRC	O C UGWEJE	NAG 3 2279	410
45	UNIV OF AKRON	R L PATTERSON	GRC	M E ELBULUK	NAG 3 2278	410
45	UNIV OF ALABAMA - HUNTSVILLE	D J LARKIN	GRC	D A GEORGE	NAG 3 2285	8
45	UNIV OF ALABAMA - HUNTSVILLE	J H DOWDY	MSFC	Y B SHTESSEL	NGT 8 52843	16
45	UNIV OF CALIFORNIA - SANTA BARBARA	T R GOVINDAN	ARC	M W WU	NCC 2 5368	114
45	UNIV OF CINCINNATI	S M GENG	GRC	H HENDERSON	NAG 3 2281	412
45	UNIV OF COLORADO - BOULDER	H NGUYEN	GRC	Y LEE	NCC 3 773	142
45	UNIV OF DAYTON	F MIRANDA	GRC	G SUBRAMANYAM	NCC 3 737	414
45	UNIV OF DAYTON	F MIRANDA	GRC	G SUBRAMANYAM	NCC 3 771	414

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45	UNIV OF DAYTON	H NGUYEN	GRC	M ATIKUZZAMAN	NCC 3 824	414
45	UNIV OF FLORIDA	M A MOTTER	LARC	J C PRINCIPE	NAG 1 2188	174
45	UNIV OF GLASGOW	T R GOVINDAN	ARC	A ASENOV	NAG 2 1241	542
45	UNIV OF HAWAII AT MANOA - HONOLULU	W H MILLER	GSFC	G UEHARA	NAG 5 7383	195
45	UNIV OF ILLINOIS - CHICAGO CIRCLE	P J GEORGE	GRC	K SHENAI	NAS 3 99189	209
45	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	G A SOFFEN	GSFC	G C PAPAN	NGT 5 73	214
45	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	K S CHUN	GRC	U MADHOW	NAG 3 2263	211
45	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	M KRAINAK	GSFC	G PAPAN	NAG 5 7692	212
45	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R R ROMANOFSKY	GRC	D BERNHARD	NCC 3 780	214
45	UNIV OF KANSAS	K BHASIN	GRC	G	NAS 3 00162	229
45	UNIV OF MARYLAND - COLLEGE PARK	H C SHAW	GSFC	D DAGENAIS	NAG 5 8711	261
45	UNIV OF MARYLAND - COLLEGE PARK	J W BAGWELL	GRC	J S BARAS	NCC 3 528	266
45	UNIV OF MASSACHUSETTS - AMHERST	D LEVINE	GSFC	K CARVER	NAS 5 99133	300
45	UNIV OF MASSACHUSETTS - AMHERST	T A DOIRON	GSFC	K CARVER	NAG 5 9630	300
45	UNIV OF MICHIGAN - ANN ARBOR	C M PRINCIPE	GSFC	C RUF	NAG 5 9762	311
45	UNIV OF MICHIGAN - ANN ARBOR	G E PONCHAK	GRC	L P KATEHI	NCC 3 790	313
45	UNIV OF MICHIGAN - ANN ARBOR	G PONCHAK	GRC	P BHATTACHARYA	NAG 3 2237	306
45	UNIV OF MICHIGAN - ANN ARBOR	G PONCHAK	GRC	P BHATTACHARYA	NAG 3 2330	306
45	UNIV OF MICHIGAN - ANN ARBOR	J W JOHNSON	LARC	A W ENGLAND	NAG 1 2142	305
45	UNIV OF MICHIGAN - ANN ARBOR	P D LAIRD	ARC	J H HOLLAND	NGT 2 52215	313
45	UNIV OF MICHIGAN - ANN ARBOR	S NASH-STEVENSON	MSFC	B GILCHRIST	NGT 8 52889	314
45	UNIV OF NEW MEXICO-ALBUQUERQUE	K KRISHEN	JSC	M SHAHINPOOR	NAG 9 995	358
45	UNIV OF NEW MEXICO-ALBUQUERQUE	W H MILLER	GSFC	G MAKI	NAG 5 7360	357
45	UNIV OF OKLAHOMA - NORMAN	S K KAHNG	LARC	J R CRUZ	NAG 1 2178	418
45	UNIV OF ROCHESTER	C R MCCREIGHT	ARC	W J FORREST	NAG 2 1280	385
45	UNIV OF TEXAS - AUSTIN	D CHRISTOPHER	GRC	J L BENO	NAG 3 2265	478
45	UNIV OF TEXAS - AUSTIN	F ADAMS	KSC	R ZOWARKA	NAG10 288	482
45	UNIV OF TEXAS - EL PASO	A HEPP	GRC	G B LUSH	NAG 3 2303	485
45	UNIV OF TEXAS - EL PASO	F BEIGMONTE	JSC	G LUSH	NAG 9 920	486
45	UNIV OF TEXAS - EL PASO	LOWRY	ARC	P J TELLER	NAG 2 1138	485
45	UNIV OF TOLEDO	G Y BAAKUNI	GRC	K J CIOS	NAG 3 1946	414
45	UNIV OF TOLEDO	R E JONES	GRC	S C KWATRA	NAG 3 1718	414
45	UNIV OF TOLEDO	R L PATTERSON	GRC	Y J KAPOOR	NAG 3 1967	414
45	UNIV OF VIRGINIA	G BROWN	GSFC	C KNOSPE	NAG 5 7625	508
45	UNIV OF VIRGINIA	G MUCKLOW	GSFC	T CROWE	NAG 5 8863	509
45	UNIV OF VIRGINIA	M KIFLE	GRC	D G WILSON	NAG 3 1948	506
45	UNIV OF VIRGINIA	R J KERCCZEWSKI	GRC	S J	NCC 3 642	511
45	UNIV OF WEST FLORIDA	A R GROSS	HQ	D STILL	NAG 2 1332	181
45	VANDERBILT UNIV	G A SOFFEN	GSFC	R D SCHRIMPF	NGT 5 105	460
45	VANDERBILT UNIV	M M GATES	GSFC	L MASSENGILL	NAG 5 7103	459
45	WAYNE STATE UNIV	D BRINKER	GRC	P WOODYARD	NAG 3 2180	315
46	ALABAMA A&M UNIV	G MYERS	MSFC	A SHARMA	NAG 8 1614	2
46	ARIZONA STATE UNIV	E TU	ARC	A CHATTOPADHYAY	NCC 2 5127	25
46	AUBURN UNIV	B S SINGH	GRC	D W MACKOWSKI	NAG 3 1882	3
46	AUBURN UNIV	J F DOWDY	MSFC	G T FLFOWERS	NGT 8 52851	4
46	AUBURN UNIV	J F DOWDY	MSFC	P D JONES	NGT 8 52870	4
46	BRIGHAM YOUNG UNIV	J DOWDY	MSFC	R DAINES	NGT 8 52877	488
46	CALIFORNIA INST OF TECH	F P CHIARAMONTE	GRC	J F BRADY	NAG 3 2166	43
46	CALIFORNIA INST OF TECH	J GRADY	GSFC	F HARRISON	NAS 5 98152	50
46	CARNEGIE - MELLON UNIV	D LAVERY	HQ	T KANADE	NAG 9 1090	425
46	CARNEGIE - MELLON UNIV	D LAVERY	JSC	T KANADE	NAG 9 1092	425
46	CARNEGIE - MELLON UNIV	H ALDRIDGE	JSC	W WHITAKER	NAG 9 1141	426
46	CARNEGIE - MELLON UNIV	M H SIMS	ARC	M HEBERT	NGT 2 52232	427
46	CARNEGIE - MELLON UNIV	R DEL ROSARIO	GRC	J H GRIFFIN	NAS 3 27735	426
46	CARNEGIE - MELLON UNIV	C DELLACORTE	GRC	J M PRAHL	NCC 3 625	399
46	CASE WESTERN RESERVE UNIV	C DELLACORTE	GRC	J M PRAHL	NCC 3 743	400
46	CASE WESTERN RESERVE UNIV	F MONTEGANI	GRC	I GREBER	NGT 3 52323	400
46	CASE WESTERN RESERVE UNIV	J A SALZMAN	GRC	J S T	NCC 3 562	399
46	CASE WESTERN RESERVE UNIV	J C DUH	GRC	I D ALEXANDER	NAG 3 2160	398
46	CASE WESTERN RESERVE UNIV	J PEREIRA	GRC	V PRAKASH	NAG 3 2315	398
46	CASE WESTERN RESERVE UNIV	K SACKSTEDER	GRC	J S T	NCC 3 633	399
46	CASE WESTERN RESERVE UNIV	N N NEMETH	GRC	D A GASPARINI	NCC 3 653	399
46	CASE WESTERN RESERVE UNIV	S J SCHNEIDER	GRC	I ADAMOVICH	NAG 3 2239	398
46	CITY UNIV OF NY CITY COLLEGE	F D CHIARAMONTE	GRC	A ACRIVOS	NCC 3 607	361
46	CLARKSON UNIV	J DOWDY	MSFC	G AHMADI	NGT 8 52849	382

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46	CLEVELAND STATE UNIV	B J MOTIL	GRC	E G KESHOCK	NAG 3 1922	401
46	CLEVELAND STATE UNIV	J M MULLINS	GRC	D L KRADEVICH	NCC 3 433	402
46	CLEVELAND STATE UNIV	J MANDERSCHIED	GRC	S F DUFFY	NCC 3 781	403
46	CLEVELAND STATE UNIV	J SALEM	GRC	J HEMANN	NCC 3 499	402
46	CLEVELAND STATE UNIV	L THIEMENE	GRC	D IBRAHIM	NAG 3 2482	401
46	CLEVELAND STATE UNIV	N N NEMETH	GRC	S F DUFFY	NCC 3 488	402
46	COLORADO SCH OF MINES	B SINGH	GRC	M NAKAGAWA	NAG 3 1970	122
46	COLORADO STATE UNIV	J VAUGHN	MSFC	P J WILBUR	NAG 8 1615	125
46	COLORADO STATE UNIV	M C GREENNISEN	JSC	S P JAMES	NGT 9 49	126
46	CORNELL UNIV	D G LOWICKI	GRC	A R INGRAFFEA	NAG 3 1993	368
46	CORNELL UNIV	F P CHARIAMONTE	GRC	J JENKINS	NCC 3 797	374
46	CORNELL UNIV	J C NEWMAN JR.	LARC	A R INGRAFFEA	NAG 1 2060	368
46	CORNELL UNIV	M NIX	MSFC	P JACKSON	NAG 8 1716	374
46	CORNELL UNIV	P B BOGERT	LARC	R PETTIT	NAG 1 2013	368
46	CORNELL UNIV	R HAKIMZADEH	GRC	M LOUGE	NAG 3 2112	369
46	CORNELL UNIV	R HAKIMZADEH	GRC	J T JENKINS	NCC 3 488	374
46	DREXEL UNIV	D D ROSS	GRC	D A RUFF	NAG 3 1884	427
46	DUKE UNIV	D E COX	LARC	R L CLARK	NCC 1 250	387
46	DUKE UNIV	J DOWDY	MSFC	L N VIRGIN	NGT 8 52842	388
46	FLORIDA ATLANTIC UNIV	K H LYLE	LARC	J M CUSCHIERI	NAG 1 1812	166
46	FLORIDA INST OF TECH	L E JONES	LARC	D C FLEMING	NAG 1 2280	167
46	FLORIDA STATE UNIV	K Q ZAMAN	GRC	C K TAM	NAG 3 2102	168
46	GEORGIA INST OF TECH	B SINGH	GRC	M K SMITH	NAG 3 1949	184
46	GEORGIA INST OF TECH	E S WEISER	LARC	J S COLTON	NAG 1 1951	183
46	GEORGIA INST OF TECH	F J MONTEGANI	GRC	J H GINSBERG	NGT 3 52371	188
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46	GEORGIA INST OF TECH	T A ZANG	LARC	F MISTREE	NGT 1 52170	187
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46	IDAHO STATE UNIV	G A FLEMING	LARC	J D BLOTTER	NAG 1 2138	200
46	ILLINOIS INST OF TECH	B M STEINETZ	GRC	D RAMAN	NCC 3 798	201
46	INDIANA UNIV	D E PAXON	GRC	R NALIM	NAG 3 2207	215
46	IOWA STATE UNIV	F J MONTEGANI	GRC	A ROTHMAYER	NGT 3 52332	224
46	IOWA STATE UNIV	G DUKEMAN	MSFC	P LU	NAG 8 1637	223
46	JOHNS HOPKINS UNIV	B S SINGH	GRC	A PROSPERETTI	NAG 3 1924	240
46	JOHNS HOPKINS UNIV	H K NAHRA	GRC	D HERMAN	NAG 3 1815	240
46	JOHNS HOPKINS UNIV	M J ROBERTS	LARC	R E GREEN	NAG 1 1811	240
46	KETTERING UNIV	J M HOUSNER	LARC	M EL-SAYED	NAG 1 1837	302
46	LEHIGH UNIV	B S LAZOS	LARC	D O ROCKWELL	NAG 1 1885	429
46	LEHIGH UNIV	M J WALSH	LARC	D O ROCKWELL	NAG 1 2248	429
46	MASSACHUSETTS INST OF TECH	H ROSS	GRC	S HOCHGREB	NAG 3 1640	284
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46	MASSACHUSETTS INST OF TECH	J DOWDY	MSFC	A WITT	NGT 8 52880	297
46	MASSACHUSETTS INST OF TECH	L S N	GRC	I A WALTZ	NAG 3 1864	284
46	MICHIGAN STATE UNIV	J B RANSOM	LARC	R C AVERILL	NAG 1 2213	302
46	MISSISSIPPI STATE UNIV	E R MCFARLAND	GRC	W R BRILEY	NAG 3 2176	322
46	MISSISSIPPI STATE UNIV	J C NEWMAN, JR.	LARC	S R DANIEWCZ	NAG 1 2003	322
46	NEW MEXICO STATE UNIV - LAS CRUCES	J M STOLTZFUS	JSC	I H LESLIE	NAG 9 938	356
46	NORFOLK STATE UNIV	S H CHOI	LARC	K D SONG	NCC 1 280	501
46	NORTH CAROLINA A&T STATE UNIV	G ZILLIAC	ARC	M HUMAN	NAG 2 1430	380
46	NORTH CAROLINA STATE UNIV	H N ZUMBRUN	LARC	O J MYERS	NGT 1 52164	394
46	NORTHWESTERN UNIV	A NURRIDIN	HQ	T IGUSA	NGT 5 50198	204
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46	NORTHWESTERN UNIV	H D ROSS	GRC	M MATALON	NAG 3 1804	201
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46	NORTHWESTERN UNIV	N D PILTCH	GRC	S H SOHRAB	NAG 3 1863	202
46	NORTHWESTERN UNIV	N PACKMAN	JSC	R M LUEPTOW	NAG 9 1053	203
46	OHIO STATE UNIV	K C CIVISKAS	GRC	M G DUNN	NAG 3 2157	405
46	OHIO STATE UNIV	K Q ZAMAN	GRC	D	NAG 3 1986	405
46	OHIO STATE UNIV	S J SCHNEIDER	GRC	I ADAMOVICH	NAG 3 2339	406
46	OHIO STATE UNIV	T T MOCKLER	GRC	R N CHRISTENSEN	NCC 3 434	408
46	OLD DOMINION UNIV	A T POPE	LARC	S TIWARI	NCC 1 254	503
46	OLD DOMINION UNIV	N J JOHNSTON	LARC	S TIWARI	NCC 1 227	503

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46	PENN STATE UNIV	F J MONTEGANI	GRC	D A SANTAVICCA	NGT 3 52368	438
46	PENN STATE UNIV	J DOWDY	MSFC	G A SMITH	NGT 8 52876	440
46	PENN STATE UNIV	M HAGOPIAN	GSFC	J E FREDLEY	NCC 5 508	438
46	PENN STATE UNIV	W ANDERSON	MSFC	R J SANTORO	NAG 8 1732	437
46	PRAIRIE VIEW A&M UNIV	W C ROEH	JSC	W F TROTTEY	NAG 9 1136	462
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46	PURDUE UNIV	Y HICKS	GRC	N M LAURENDEAU	NAG 3 2251	218
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46	RICE UNIV	T A PETERS	JSC	Y BAYAZITOGU	NAG 9 948	465
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46	STANFORD UNIV	F CHARIMONTE	GRC	J K EATON	NCC 3 640	68
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46	STATE UNIV OF NY - BUFFALO	J P DRUMMOND	LARC	P GIVI	NAG 1 2238	380
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46	TEXAS A&M UNIV	E K UNGAR	JSC	J SEYED-YAGOOBI	NAG 9 1145	469
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46	TEXAS A&M UNIV	M S WHORTON	MSFC	A B PALAZZOLO	NAG 8 1343	468
46	TEXAS A&M UNIV	S A HIPPENSTEELE	GRC	S C LAU	NAG 3 1980	467
46	TEXAS SOUTHERN UNIV	M K EWERT	JSC	J HILL	NAG 9 1132	471
46	TUSKEGEE UNIV	H TRINH	MSFC	D A IBRAHIM	NAG 8 1246	5
46	UNIV HOUSTON-HOUSTON	B S MOTIL	GRC	V BALAKOTIAH	NAG 3 1840	472
46	UNIV HOUSTON-HOUSTON	D SICKOREZ	JSC	R B BANNEROT	NAG 9 867	473
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46	UNIV OF AKRON	A ARNOLD	GRC	D F SALEEB	NCC 3 788	411
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46	UNIV OF AKRON	W B DUVAL	GRC	C BATUR	NCC 3 567	411
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46	UNIV OF ALABAMA - HUNTSVILLE	S NASH-STEVENSON	MSFC	C HAWK	NGT 8 52891	16
46	UNIV OF ARIZONA	D H JACOBSON	MSFC	J H BURGE	NAS 5 99208	39
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46	UNIV OF CALIFORNIA - BERKELEY	H D ROSS	GRC	A C FERNANDEZ-PELLO	NCC 3 478	80
46	UNIV OF CALIFORNIA - BERKELEY	H D ROSS	GRC	D FERNANDEZ-PELLO	NCC 3 803	80
46	UNIV OF CALIFORNIA - BERKELEY	S R ELLIS	ARC	H KAZERAONI	NCC 2 909	79
46	UNIV OF CALIFORNIA - BERKELEY	S R ELLIS	ARC	H KAZEROONI	NCC 2 1171	80
46	UNIV OF CALIFORNIA - DAVIS	D KWAK	ARC	B D SHAW	NCC 3 353	86
46	UNIV OF CALIFORNIA - IRVINE	H D ROSS	GRC	W A SIRIGNANO	NAG 3 2024	87
46	UNIV OF CALIFORNIA - IRVINE	J HANSON	MSFC	K D MEASE	NAG 8 1652	88
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46	UNIV OF CALIFORNIA - LOS ANGELES	B S SINGH	GRC	R E KELLY	NAG 3 1819	90
46	UNIV OF CALIFORNIA - LOS ANGELES	D F CHAO	GRC	V K DHIR	NAG 3 2467	91
46	UNIV OF CALIFORNIA - LOS ANGELES	I S RAJU	LARC	S N ATLURI	NAG 1 2274	90
46	UNIV OF CALIFORNIA - LOS ANGELES	J DOWDY	MSFC	M A ABDOU	NGT 8 52844	99
46	UNIV OF CALIFORNIA - LOS ANGELES	J M LEE	ARC	T K FREDERKING	NAG 2 1228	90
46	UNIV OF CALIFORNIA - SAN DIEGO	H K TRAN	ARC	R E SKELTON	NCC 2 1135	108
46	UNIV OF CALIFORNIA - SAN DIEGO	O MEHMED	GRC	J KOSMATKA	NCC 3 569	108
46	UNIV OF CINCINNATI	C L MOORE	LARC	H T HENDERSOM	NAS 1 00123	413
46	UNIV OF CINCINNATI	K W BAKER	GRC	M J KAZMIERCZAK	NAG 3 1706	412
46	UNIV OF COLORADO - BOULDER	H D ROSS	GRC	J R HERTZBERG	NAG 3 1616	127
46	UNIV OF COLORADO - BOULDER	M S BURRELL	GSFC	P AXELRAD	NGT 5 47	143
46	UNIV OF CONNECTICUT	B S SINGH	GRC	A FAGHRI	NAG 3 1870	147
46	UNIV OF DELAWARE	M W WEISLOGEL	GRC	L W SCHWARTZ	NAG 3 1920	151
46	UNIV OF FLORIDA	A RODRIGUEZ	KSC	W SHYY	NAG10 261	176

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46	UNIV OF ILLINOIS - CHICAGO CIRCLE	A NURRIDIN	HQ	C M MEGARIDIS	NGT 5 50214	210
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46	UNIV OF ILLINOIS - CHICAGO CIRCLE	R F HANDSCHUH	GRC	D L LITVIN	NAG 3 2450	209
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46	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	B S SINGH	GRC	H AREF	NAG 3 2122	211
46	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R W HAMPTON	ARC	R H DODDS	NAG 2 1126	210
46	UNIV OF KENTUCKY	G C HORNER	LARC	M ROCHE	NGT 1 52223	231
46	UNIV OF KENTUCKY	J F DOWDY	MSFC	J A MAIN	NGT 8 52869	231
46	UNIV OF KENTUCKY	M S BURRELL	GSFC	J A MAIN	NGT 5 71	231
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46	UNIV OF MASSACHUSETTS - AMHERST	D LEWICKI	GRC	D DANAI	NAG 3 2452	299
46	UNIV OF MEMPHIS	F B OSWALD	GRC	H H LIN	NAG 3 2092	456
46	UNIV OF MICHIGAN - ANN ARBOR	D MONTEGANI	GRC	S CECCIO	NGT 3 52319	313
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46	UNIV OF MICHIGAN - ANN ARBOR	D W GRIFFIN	GRC	R G LARSON	NAG 3 2134	306
46	UNIV OF MICHIGAN - ANN ARBOR	F CHIARAMONTE	GRC	P MERTE	NAG 3 1900	305
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46	UNIV OF MICHIGAN - ANN ARBOR	J B MCGUILLEN	GRC	L P BERNAL	NCC 3 474	312
46	UNIV OF MICHIGAN - ANN ARBOR	O MEHMED	GRC	C PIERRE	NAG 3 1880	305
46	UNIV OF MICHIGAN - ANN ARBOR	W F EMRICH	MSFC	T KAMMASH	NAG 8 1725	311
46	UNIV OF MISSOURI - COLUMBIA	J F DOWDY	MSFC	C A KLUEVER	NGT 8 52850	326
46	UNIV OF MISSOURI - ROLLA	M A MEADER	GRC	D ROY	NAG 3 2357	326
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46	UNIV OF NEW MEXICO-ALBUQUERQUE	M D WATSON	MSFC	M OSINSKI	NAG 8 1664	358
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46	UNIV OF SOUTHERN CALIFORNIA	D W GRIFFIN	GRC	H G PEARLMAN	NCC 3 501	122
46	UNIV OF SOUTHERN CALIFORNIA	K J WEILAND	GRC	P D RONNEY	NAG 3 2124	120
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46	UNIV OF TEXAS - AUSTIN	E L CHRISTIANSEN	JSC	E P FAHRENTHOLD	NAG 9 946	481
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46	UNIV OF TOLEDO	M P PROCTOR	GRC	T G KEITH	NCC 3 616	416
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46	UNIV OF VIRGINIA	G BROWN	GRC	C R KNOSPE	NAG 3 2189	506
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46	UNIV OF VIRGINIA	J W POSEY	LARC	H G WOOD	NCC 1 340	510
46	UNIV OF VIRGINIA	T GLASGOW	GRC	H HAJ-HARIRI	NAG 3 1916	506
46	UNIV OF WISCONSIN - MADISON	M L TINKER	MSFC	D C KAMMER	NAG 8 1651	535
46	VA POLYTECH INST & ST UNIV	C H GERHOLD	LARC	R A BURDISO	NAG 1 2325	513
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46	YALE UNIV	K J WEILAND	GRC	M B LONG	NAG 3 1939	148
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47	ALL RUSSIAN SCI RESEARCH INST VIAM	R K BIRD	LARC	J FRIDLYANDER	NCC 1 353	542
47	AUBURN UNIV	R D NOEBE	GRC	W F GALE	NAG 3 2120	3
47	AUBURN UNIV	W E POWELL	MSFC	R A OVERFELT	NCC 8 128	3
47	CARNEGIE - MELLON UNIV	H C SHAW	GSFC	P N KUMTA	NAG 5 8744	425
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47	CASE WESTERN RESERVE UNIV	M V NATHAL	GRC	G M MICHAL	NCC 3 389	399
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47	CLARK ATLANTA UNIV	G D ROBERTS	GRC	A ABRATAN	NAS 3 27785	182
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47	CLEMSON UNIV - CLEMSON	H C SHAW	GSFC	D L CARROLL	NAG 5 9459	449
47	CLEMSON UNIV - CLEMSON	S A WISE	LARC	R W SCHWARTZ	NCC 1 283	450
47	CLEVELAND STATE UNIV	H C DE GROH	GRC	D N TEWARI	NCC 3 631	402
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47	CLEVELAND STATE UNIV	S G BAILEY	GRC	M FAUR	NAG 3 2144	401
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47	COLLEGE OF WILLIAM AND MARY	J W CONNELL	LARC	R A ORWOLL	NGT 1 52200	495
47	CORNELL UNIV	J C NEWMAN	LARC	R PETTIT	NAG 1 2268	368
47	CORNELL UNIV	P DOTY	MSFC	A J SIEVERS	NAG 8 1666	374
47	DREXEL UNIV	J K SUTTER	GRC	D KNIGHT	NCC 3 825	428
47	DUKE UNIV	E NELSON	GRC	R BEHRINGER	NAG 3 1917	387
47	DUKE UNIV	M TINKER	MSFC	L N VIRGIN	NAG 8 1715	387
47	FLORIDA A&M UNIV	B A BAUM	LARC	H GARMESTANI	NAG 1 1866	164
47	FLORIDA STATE UNIV	A CHAIT	GRC	J VINALS	NAG 3 1885	168
47	GEORGIA INST OF TECH	J DOWDY	MSFC	A GOKHALE	NGT 8 52881	188
47	GEORGIA INST OF TECH	J R ELLIS	GRC	D TALREJA	NCC 3 711	187
47	GEORGIA INST OF TECH	P DOTY	MSFC	A M GOKHALE	NAG 8 1245	185
47	GEORGIA INST OF TECH	T L ST. CLAIR	LARC	W S JOHNSON	NAG 1 1890	183
47	GEORGIA INST OF TECH	W D BREWER	LARC	J K COCHRAN	NAG 1 2245	184
47	GEORGIA INST OF TECH	W DUVAL	GRC	M F SCHATZ	NAG 3 2006	184
47	GEORGIA INST OF TECH	P DOTY	MSFC	F A SPAEPEN	NAG 8 1680	281
47	HARVARD UNIV	A JACKSON	MSFC	R K TRIVETI	NAG 8 1681	223
47	IOWA STATE UNIV	M A MEADOR	GRC	R J TWIEG	NCC 3 721	404
47	KENT STATE UNIV	A JOYCE	SSC	D ROYER	NAG13 47	429
47	LINCOLN UNIV - PA	C C HUNG	GRC	G W CLARK	NCC 3 601	217
47	MANCHESTER COLLEGE	J F DOWDY	MSFC	A F WITT	NGT 8 52860	297
47	MASSACHUSETTS INST OF TECH	M PURVEY	MSFC	A WITT	NAG 8 1487	293
47	MASSACHUSETTS INST OF TECH	P DOTY	MSFC	R SADOWAY	NAG 8 1689	293
47	MICHIGAN STATE UNIV	J M BENAVIDES	GSFC	V AYRES	NAG 5 8893	303
47	MICHIGAN STATE UNIV	P DOTY	MSFC	A BERNARD	NAG 8 1690	303
47	MONTANA STATE UNIV	W F BROOKS	ARC	A E CRAIG	NAG 2 1323	331
47	NORFOLK STATE UNIV	E T PRIOR	LARC	J JACOBS	NAG 1 2125	500
47	NORTH CAROLINA A&T STATE UNIV	B J JENSEN	LARC	D O DUNN	NAG 1 1874	389
47	NORTH CAROLINA A&T STATE UNIV	D R AMBUR	LARC	K N SHIVAKUMAR	NAG 1 1956	389
47	NORTH CAROLINA A&T STATE UNIV	R BHATT	GRC	J SANKAR	NAS 3 96055	391
47	NORTH CAROLINA STATE UNIV	C H LIN	JSC	M H MOHAMAD	NAG 9 1087	393
47	NORTH CAROLINA STATE UNIV	G B NORTHAM	LARC	L H LEE	NGT 1 52125	394

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47	NORTH DAKOTA STATE UNIV	F SIX	MSFC	P HAMMOND	NAG 8 1007	396
47	NORTHWESTERN UNIV	A CHART	GRC	S H DAVIS	NAG 3 1737	202
47	NORTHWESTERN UNIV	B S SINGH	GRC	A Z PATASHINSKI	NAG 3 1932	202
47	NORTHWESTERN UNIV	R D NOEBE	GRC	D N SEIDMAN	NAG 3 2485	202
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47	NORTHWESTERN UNIV	T S GATES	LARC	R S RUOFF	NAG 1 2313	201
47	NORTHWESTERN UNIV	W P WINFREE	LARC	J D ACHENBACH	NAG 1 1813	201
47	OHIO STATE UNIV	G D ROBERTS	GRC	A GILAT	NAG 3 2233	405
47	OHIO STATE UNIV	J W HINES	ARC	M MADOU	NCC 2 5251	408
47	OHIO STATE UNIV	P DOTY	MSFC	P K DUTTA	NAG 8 1670	407
47	OLD DOMINION UNIV	R J CANO	LARC	R B PIPES	NCC 1 363	504
47	PURDUE UNIV	J R REAGAN	GRC	H MINDLIN	NAG 3 2080	217
47	PURDUE UNIV	J REAGAN	GRC	C GIBSON	NAG 3 2453	218
47	RENSSELAER POLYTECH INST	G B NORTHAM	LARC	T A BLANEHET	NGT 1 52126	378
47	RENSSELAER POLYTECH INST	P M DOTY	MSFC	M E GLICKSMAN	NAG 8 1896	378
47	SAINT LOUIS UNIV	C DELLACORTE	GRC	P A BENOY	NAG 3 2489	324
47	SAN JOSE STATE UNIV	D B LEISER	ARC	G SELVADURAY	NAG 2 848	57
47	SOUTH DAKOTA SCH OF MINES & TECH	F MONTEGANI	GRC	J KELLER	NGT 3 52312	453
47	STANFORD UNIV	S SHARMA	ARC	M CAPPELLI	NCC 2 5205	67
47	TUFTS UNIV	R A MILLER	GRC	M KACHANOV	NAS 3 97002	298
47	TUFTS UNIV	T K GLASGOW	GRC	C ROGERS	NCC 3 479	298
47	TUSKEGEE UNIV	M J VERILLE	GRC	A HAQUE	NCC 3 581	8
47	TUSKEGEE UNIV	R ROGOSKI	LARC	J N BHUYAN	NAG 1 1865	4
47	UNION COLLEGE	A T NETTLES	MSFC	R B BUCINELL	NAS 8 99151	385
47	UNIV HOUSTON-HOUSTON	J C BRASUNAS	GSFC	C	NAG 5 8126	472
47	UNIV HOUSTON-HOUSTON	S J LAMBING	MSFC	A IGNATIEV	NCC 8 127	473
47	UNIV OF MINN	P M DOTY	MSFC	J J DERBY	NAG 8 1676	318
47	UNIV OF AKRON	A CHAIT	GRC	G W YOUNG	NCC 3 716	411
47	UNIV OF AKRON	A CHAIT	GRC	G YOUNG	NCC 3 494	410
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47	UNIV OF AKRON	G D ROBERTS	GRC	E SANCAKTAR	NCC 3 744	411
47	UNIV OF AKRON	M A MEADOR	GRC	R K EBY	NCC 3 682	411
47	UNIV OF AKRON	N N NEMETH	GRC	W BINIENDA	NCC 3 579	411
47	UNIV OF AKRON	R T BHATT	GRC	W BIBIENDA	NCC 3 615	411
47	UNIV OF ARIZONA	J CONNOLLY	JSC	K R SRIDHAR	NAG 9 1229	38
47	UNIV OF ARKANSAS - LITTLE ROCK	R TRAVIS	SSC	K MAXWELL	NGT13 52724	42
47	UNIV OF CALIFORNIA - DAVIS	T L PANONTIN	ARC	M R HILL	NCC 2 5214	85
47	UNIV OF CALIFORNIA - IRVINE	W D BREWER	LARC	E J LAVERNIA	NGT 1 52135	89
47	UNIV OF CALIFORNIA - LOS ANGELES	R G BRYANT	LARC	G P CARMEN	NGT 1 52240	98
47	UNIV OF CALIFORNIA - LOS ANGELES	R ROGERS	GRC	S PUTTERMAN	NAG 3 1889	91
47	UNIV OF COLORADO - BOULDER	B V GUYNES	MSFC	S STURE	NAS 8 38779	141
47	UNIV OF FLORIDA	C R REGAN	LARC	D E CLARK	NAG 1 2087	173
47	UNIV OF FLORIDA	J C BRASUNAS	GSFC	R SINGH	NAG 5 7729	175
47	UNIV OF FLORIDA	M BASSIGNANI	KSC	E D WACHSMAN	NAG10 274	176
47	UNIV OF FLORIDA	P R DOTY	MSFC	T J ANDERSON	NAG 8 1243	175
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47	UNIV OF ILLINOIS - CHICAGO CIRCLE	W DUVAL	GRC	D POULIKAKOS	NAG 3 1905	209
47	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	T L PANONTIN	ARC	G H PAULINO	NGT 2 52271	214
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47	UNIV OF IOWA	P DOTY	GSFC	C BECKERMANN	NCC 8 199	227
47	UNIV OF MARYLAND - COLLEGE PARK	H ROSS	GRC	J QUINTIERE	NAG 3 1961	253
47	UNIV OF MASSACHUSETTS - AMHERST	G C FRALICK	GRC	S B DESU	NCC 3 672	300
47	UNIV OF MICHIGAN - ANN ARBOR	D G SICKOREZ	JSC	A D KUO	NGT 9 3	314
47	UNIV OF MICHIGAN - ANN ARBOR	J S SALUTE	ARC	M C DOBSON	NCC 2 5224	312
47	UNIV OF NEW MEXICO-ALBUQUERQUE	R R DIFIORE	ARC	R E LOEHMAN	NAG 2 1437	356
47	UNIV OF NORTH CAROLINA - CHAPEL HILL	R L JAFFE	ARC	J LU	NCC 2 5291	395
47	UNIV OF NORTH CAROLINA - CHAPEL HILL	R L JAFFE	ARC	O ZHOU	NCC 2 5288	395
47	UNIV OF NORTH CAROLINA - CHAPEL HILL	R L JAFFE	ARC	O ZHOU	NGT 2 52247	395
47	UNIV OF PENNSYLVANIA	H SHAW	GSFC	D LUZZI	NAG 5 9241	440
47	UNIV OF SOUTH CAROLINA-COLUMBIA	R A HAFLEY	LARC	A P REYNOLDS	NAG 1 2108	451
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47	UNIV OF TEXAS - EL PASO	A BEAM	MSFC	J C MCCLURE	NAG 8 1845	486
47	UNIV OF TEXAS - EL PASO	E B CLARK	GRC	V P SINGH	NAG 3 1820	485
47	UNIV OF TEXAS - EL PASO	J DING	MSFC	J MCCLURE	NCC 8 137	487
47	UNIV OF TEXAS - EL PASO	L ARMENDARIZ	JSC	L E MURR	NAG 9 1171	486



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47	UNIV OF VIRGINIA	C MOORE	HQ	H N WADLEY	NAG 1 1953	505
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47	UNIV OF VIRGINIA	M S DOMACK	LARC	D A LITTLE	NAG 1 2282	506
47	UNIV OF VIRGINIA	R PIASCIK	LARC	G SHIFLET	NAG 1 2321	506
47	UNIV OF VIRGINIA	R S PIASCIK	LARC	R G KELLY	NCC 1 312	510
47	UNIV OF VIRGINIA	R S PIASCIK	LARC	R P GANGLOFF	NAG 1 1841	505
47	UNIV OF WASHINGTON	J F DOWDY	MSFC	L N BRUSH	NGT 8 52862	526
47	UNIV OF WISCONSIN - MADISON	B S SINGH	GRC	S KOU	NAG 3 1909	530
47	UNIV OF WISCONSIN - MADISON	P M DOTY	MSFC	S KOU	NAG 8 1459	535
47	UNIV OF WISCONSIN - MILWAUKEE	W M FOSTER	GRC	S V GARIMELLA	NCC 3 600	538
47	VA POLYTECH INST & ST UNIV	H B DEXTTER	LARC	A C LOOS	NAG 1 1881	512
47	VA POLYTECH INST & ST UNIV	M H JASKOWIAK	GRC	W A CURTIN	NAG 3 2100	514
47	VA POLYTECH INST & ST UNIV	S A WISE	LARC	M W HYER	NCC 1 304	515
47	VANDERBILT UNIV	P DOTY	MSFC	R J BAYVZICK	NCC 8 91	460
47	WASHINGTON UNIV - ST	P DOTY	MSFC	K F KELTON	NAG 8 1682	330
47	WICHITA STATE UNIV	A C NUNES	MSFC	G E TALIA	NCC 8 202	230
49	ALABAMA A&M UNIV	W LOVE	MSFC	D ILA	NAG 8 1655	2
49	ALCORN STATE UNIV	B ST. CYR	JSC	S ACEIL	NAG13 98005	321
49	ARIZONA STATE UNIV	N R PELLIS	JSC	B TOWE	NAG 9 815	24
49	AUBURN UNIV	J HOWELL	MSFC	S A MERRYMAN	NAG 8 1728	3
49	BOSTON UNIV	A NURRIDIN	HQ	S CHAKRABARTI	NGT 5 50171	276
49	BOSTON UNIV	R B ROGERS	GRC	D HOLT	NAG 3 2392	272
49	BOWIE STATE UNIV	L GATTO	GSFC	N T WAKIM	NCC 5 201	239
49	BRANDEIS UNIV	F P CHIARAMONTE	GRC	D FRADEN	NAG 3 2386	276
49	BROWN UNIV	G A SOFFEN	GSFC	G CRAWFORD	NGT 5 91	447
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49	CALIFORNIA INST OF TECH	J H AGUI	GRC	M L HUNT	NAG 3 2358	43
49	CALIFORNIA INST OF TECH	S F ZPRNETZER	ARC	C KOCH	NGT 2 52240	50
49	CALIFORNIA ST	T J LLOYD	NMO	V H GARNER	NCC 7 10	52
49	CALIFORNIA STATE UNIV-BAKERSFIELD	K S SHY	DFRC	K L NYBERG	NAG 4 200	55
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49	CARNEGIE - MELLON UNIV	C J CULBERT	JSC	W R WHITTAKER	NAG 9 1256	426
49	CARNEGIE - MELLON UNIV	C J CULBERT	JSC	W WHITTAKER	NAG 9 1214	426
49	CARNEGIE - MELLON UNIV	F J MONTEGANI	GRC	P N KUMTA	NGT 3 52370	427
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49	CARNEGIE - MELLON UNIV	R D JUDAY	JSC	O AMIDI	NAG 9 1232	426
49	CARNEGIE - MELLON UNIV	T PENDLETON	JSC	R SIMMONS	NAG 9 1226	426
49	CASE WESTERN RESERVE UNIV	A D PLUNE	GRC	S OSTRACH	NAG 3 1868	397
49	CASE WESTERN RESERVE UNIV	B S SINGH	GRC	A SAYIR	NAG 3 2238	398
49	CASE WESTERN RESERVE UNIV	D GREEN	GRC	Y KAMOTANI	NCC 3 823	400
49	CASE WESTERN RESERVE UNIV	F J MONTEGANI	GRC	J R KADAMBI	NGT 3 52352	400
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49	CASE WESTERN RESERVE UNIV	K R SACKSTEDER	GRC	J S TIEN	NCC 3 669	400
49	CASE WESTERN RESERVE UNIV	S L OLSON	GRC	J S TIEN	NCC 3 658	399
49	CITY UNIV OF NY CITY COLLEGE	F P CHIARAMONTE	GRC	D KOPLIK	NAG 3 2335	360
49	CLARK ATLANTA UNIV	A CHOW	MSFC	T BAI	NAG 8 1345	182
49	CLARK ATLANTA UNIV	H D ROSS	GRC	Y D YEBOAH	NCC 3 707	182
49	CLEMSON UNIV - CLEMSON	B G KANKI	ARC	A K GRAMOPADHYE	NCC 2 1114	450
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49	CLEVELAND STATE UNIV	H DEGROH	GRC	D TEWARI	NCC 3 818	403
49	CLEVELAND STATE UNIV	H E KAUTZ	GRC	J HEMANN	NCC 3 582	402
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49	CLEVELAND STATE UNIV	J M MULLINS	GRC	G L KRAMERICH	NCC 3 647	403
49	CLEVELAND STATE UNIV	K JULES	GRC	P P LIN	NAG 3 2326	401
49	CLEVELAND STATE UNIV	P S GREENSBERG	GRC	J A LOCK	NAG 3 2423	401
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49	CORNELL UNIV	H K NAHRA	GRC	D L KOCH	NAG 3 2349	369
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49	DREXEL UNIV	B S SINGH	GRC	M A DELLAVECCHIA	NAG 3 2291	427
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49	EDWARD WATERS COLLEGE	E JOHNSON	KSC	G BUCKINGHAM	NAG10 213	163
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49	FLORIDA A&M UNIV	E SMITH	KSC	F S HUMPHRIES	NAG10 238	165
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49	GEORGE WASHINGTON UNIV	R L YANG	LARC	J L WHITESIDES	NAG 1 1353	154
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49	GEORGIA INST OF TECH	F J MONTEGANI	GRC	G T ZHOU	NGT 3 52334	187
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49	IOWA STATE UNIV	D HUBBARD	MSFC	R K TRIVEDI	NCC 8 98	224
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49	JAMES MADISON UNIV	A D LITTLE	LARC	J J MILES	NAG 1 2186	500
49	JOHNS HOPKINS UNIV	F P CHIARAMONTE	GRC	K J STEBE	NCC 3 812	250
49	JOHNS HOPKINS UNIV	M M HASAN	GRC	A PROSPERETTI	NAG 3 2362	241
49	LOUISIANA STATE UNIV - BATON ROUGE	H C NEEDLEMAN	GSFC	J P WEFEL	NAG 5 5064	233
49	LOUISIANA STATE UNIV - BATON ROUGE	J SKARDA	GRC	H WONG	NAG 3 2361	233
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49	MASSACHUSETTS INST OF TECH	K CORKER	ARC	R J HANSMAN	NAG 2 716	283
49	MASSACHUSETTS INST OF TECH	M E ROSENTHAL	MSFC	C R CANIZARES	NAS 8 38249	294
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49	MISSISSIPPI STATE UNIV	R TRAVIS	SSC	R FOLLET	NGT13 52741	323
49	MISSISSIPPI STATE UNIV	Y K CHOO	GRC	B K SONI	NAG 3 2235	322
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49	NEW MEXICO STATE UNIV - LAS CRUCES	W H MILLER	GSFC	S HORAN	NAG 5 9323	356
49	NEW MEXICO STATE UNIV - LAS CRUCES	W MILLER	GSFC	S HORAN	NAG 5 7520	355
49	NORFOLK STATE UNIV	J E GARDNER	LARC	J A JACOBS	NAG 1 1432	500
49	NORTH CAROLINA A&T STATE UNIV	A J HATCH	ARC	J C KELLY	NGT 2 52201	391
49	NORTH CAROLINA A&T STATE UNIV	J RUF	MSFC	K JONES	NAG 8 1142	391
49	NORTH CAROLINA A&T STATE UNIV	W LOVE	MSFC	E CHEEK	NAG 8 1707	391
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49	UNIV OF TOLEDO	D MONTEGANI	GRC	D J KAPOOR	NGT 3 52342	417
49	UNIV OF TOLEDO	P MURTHY	GRC	T G KEITH	NCC 3 524	416
49	UNIV OF TURABO	M MATEU	GSFC	B A MARRERO	NGT 5 90064	541
49	UNIV OF UTAH	G MEYER	ARC	S DEVASIA	NAG 2 1277	488
49	UNIV OF UTAH	H D ROSS	GRC	D E MELL	NAG 3 2403	488
49	UNIV OF VIRGINIA	H A ROELANT	LARC	J BECHTA-DUGAN	NAS 1 99098	510
49	UNIV OF VIRGINIA	L E JONES	LARC	R W KENT	NGT 1 52244	511
49	UNIV OF VIRGINIA	S M ARNOLD	GRC	M J PINDER	NAG 3 2359	506
49	UNIV OF VIRGINIA	S M ARNOLD	GRC	M J PINDER	NAG 3 2411	506
49	UNIV OF WASHINGTON	N R HALL	GRC	T J MATULA	NAG 3 2379	518
49	UNIV OF WASHINGTON	W J STOUT	LARC	K Y LIN	NAG 1 2296	517
49	UNIV OF WISCONSIN - MADISON	J F DOWDY	MSFC	J F CRUISE	NGT 8 52865	537
49	VA POLYTECH INST & ST UNIV	D L PALOMBO	LARC	M AHMODEON	NGT 1 52246	515
49	VA POLYTECH INST & ST UNIV	J E MAY	GRC	U VANDSBURGER	NAG 3 2093	513
49	VA POLYTECH INST & ST UNIV	R S PIASCLK	LARC	J A NEWMAN	NGT 1 52174	515
49	VANDERBILT UNIV	C J CULBERT	JSC	R A PETERS II	NGT 9 52	460
49	VANDERBILT UNIV	J BARTH	GSFC	L MASSENGILL	NAG 5 9828	459
49	VANDERBILT UNIV	J F DOWDY	MSFC	S MAHADEVAN	NGT 8 52852	460
49	VANDERBILT UNIV	R D GREEN	GRC	D LEVAN	NAG 3 2401	458
49	VANDERBILT UNIV	R M WEINSTOCK	GSFC	S MAHADEVAN	NGT 5 50212	460
49	WASHINGTON STATE UNIV	C NIEDERHAUS	GRC	D MARSTON	NAG 3 2378	526
49	WASHINGTON UNIV - ST	D L URBAN	GRC	R L AXELBAUM	NCC 3 697	330
49	WASHINGTON UNIV - ST	L KALUZIENSKI	GSFC	P L HINK	NAG 5 8568	329
49	WASHINGTON UNIV - ST	S A GOKOGLE	GRC	R L AXELBAUM	NAG 3 1910	327
49	WAYNE STATE UNIV	G MEYER	ARC	F LIN	NAG 2 1279	315
49	WEST VIRGINIA UNIV	J F MEYERS	LARC	J M KUHLMAN	NAG 1 1892	527
49	WICHITA STATE UNIV	C BIDWELL	GRC	D PAPADAKIS	NAG 3 2324	230
49	WICHITA STATE UNIV	D L DIETRICH	GRC	D N KOERT	NAG 3 2288	230
49	WILBERFORCE UNIV	A F HEPP	GRC	D R BUFFINGER	NAG 3 2301	417
49	WOFFORD COLLEGE	J F DOWDY	MSFC	D M SCOTT	NAG 8 1310	452
49	WORCESTER POLYTECH INST	D P STOCKER	GRC	D C HERMANSON	NCC 3 673	302
49	WORCESTER POLYTECH INST	F CHIARAMONTE	GRC	D C HERMANSON	NAG 3 2395	302
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49	YALE UNIV	D L URBAN	GRC	M D SMOOKE	NAG 3 2262	149
49	YALE UNIV	F P CHIARAMONTE	GRC	D LOEWENBERG	NAG 3 2477	149
49	YALE UNIV	K SACKSTEDER	GRC	D E ROSNER	NCC 3 691	150
49	YALE UNIV	R ROGERS	GRC	R E APFEL	NAG 3 2377	149
51	ALABAMA A&M UNIV	R C RICHMOND	MSFC	D KALE	NAG 8 1541	2
51	ARIZONA STATE UNIV	B GUYNES	MSFC	J ALLEN	NAG 8 1353	24

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51	ARIZONA STATE UNIV	M MEYER	GSFC	D CRONIN	NAG 5 4131	22
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51	BAYLOR COLLEGE OF MED	C F SAWIN	JSC	B R ALFORD	NCC 9 58	461
51	BAYLOR COLLEGE OF MED	M M AVERNER	ARC	B B HASHEMI	NAG 2 1357	460
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51	BAYLOR COLLEGE OF MED	N R PELLIS	JSC	A S RAJAN	NAG 8 1583	461
51	BENEDICT COLLEGE	R E GRINDELAND	ARC	L LOWE	NAG 2 1164	448
51	BROOKLYN COLLEGE	D A REISS-BUBENHEIM	ARC	M P SCHREIBMAN	NCC 2 963	359
51	CALIFORNIA INST OF TECH	M A MEYER	GSFC	D YUNG	NAG 5 4022	44
51	CALIFORNIA INST OF TECH	M M AVERNER	ARC	E M DAVIDSON	NAG 2 1368	43
51	CALIFORNIA INST OF TECH	M M AVERNER	ARC	E V ROTHENBERG	NAG 2 1370	43
51	CALIFORNIA INST OF TECH	M M AVERNER	ARC	M BRONNER-FRASER	NAG 2 1346	43
51	CALIFORNIA INST OF TECH	M MEYER	GSFC	G BLAKE	NAG 5 8822	48
51	CASE WESTERN RESERVE UNIV	D REISS-BUBENHEIM	ARC	S J MOORMAN	NCC 2 1204	399
51	CASE WESTERN RESERVE UNIV	M M AVERNER	ARC	S J MOORMAN	NAG 2 1356	397
51	COLUMBIA UNIV	C A MITCHELL	ARC	D J WOLGEMUTH	NAG 2 1185	362
51	COLUMBIA UNIV	M M AVRENER	ARC	D J WOLGEMUTH	NAG 2 1345	362
51	CORNELL UNIV	B GUYNES	MSFC	R THORNE	NAG 8 1574	374
51	CORNELL UNIV	R K GLOBUS	ARC	M C VAN DER MEULEN	NCC 2 1201	374
51	CREIGHTON UNIV	M M AVERNER	ARC	B FRITZSCH	NAG 2 1353	333
51	DARTMOUTH COLLEGE	H K HIGGINBOTTAM	MSFC	U J GIBSON	NAG 8 1590	337
51	DARTMOUTH COLLEGE	M M AVERNER	ARC	K PETERSON	NAG 2 1420	336
51	DELAWARE STATE UNIV	D MENCHAN	GSFC	G OFOSU	NAG 5 8240	151
51	DREXEL UNIV	M M AVERNER	ARC	P I LELKES	NAG 2 1436	427
51	DUKE UNIV	B GUYNES	MSFC	W E KRAUS	NAG 8 1581	387
51	DUKE UNIV	C M WINGET	ARC	P ANDERSON	NAG 2 1002	386
51	DUKE UNIV	K W CULLINGS	ARC	C CUNNINGHAM	NGT 2 52236	388
51	DUKE UNIV	M M AVERNER	ARC	G A WRAT	NAG 2 1377	386
51	DUKE UNIV	N PELLIS	JSC	W E KRAUS	NAG 9 810	387
51	EAST CAROLINA UNIV	A E RONCA	ARC	H W BURDEN	NCC 2 1165	388
51	EMORY UNIV	B GUYNES	MSFC	V CONTICELLO	NAG 8 1579	182
51	FLORIDA A&M UNIV	C M WINGET	ARC	M S SACHDEVA	NCC 2 1005	166
51	FLORIDA INST OF TECH	B GUYNES	MSFC	C HELMSTALTER	NAG 8 1582	167
51	FLORIDA STATE UNIV	M A MEYER	GSFC	D FRIEDMANN	NAG 5 4921	169
51	GEORGE WASHINGTON UNIV	M MEYER	GSFC	J LOGSDON	NAG 5 6978	154
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51	HARVARD UNIV	G A SOFFEN	GSFC	C CAVANAUGH	NGT 5 101	281
51	HARVARD UNIV	M A MEYER	GSFC	D D HOLLAND	NAG 5 4174	279
51	HARVARD UNIV	M M AVERNER	ARC	N M HOLBROOK	NAG 2 1417	278
51	HOWARD UNIV	L PUTCHA	JSC	M W COOMES	NAG 9 977	157
51	INDIANA UNIV	A NURRIDIN	HQ	R L DUCN	NGT 5 50203	215
51	INDIANA UNIV	B GUYNES	MSFC	C M TRAYCOFF	NAG 8 1586	215
51	KANSAS STATE UNIV	R J WHITE	HQ	B S SPOONER	NAGW 2328	228
51	KANSAS STATE UNIV	W E HINDS	ARC	S K CHAPES	NAG 2 1274	228
51	LOUISIANA STATE UNIV - BATON ROUGE	C M WINGET	ARC	M E MUSGRAVE	NAG 2 1020	232
51	MARSHALL UNIV	M M AVERNER	ARC	W B RHOTEN	NAG 2 1194	527
51	MASSACHUSETTS INST OF TECH	K HIGGINBOTHAM	MSFC	L FREES	NCC 8 174	296
51	MASSACHUSETTS INST OF TECH	M M AVERNER	ARC	A L DEMAIN	NAG 2 1350	284
51	MASSACHUSETTS INST OF TECH	N R PELLIS	JSC	L E FREED	NAG 9 836	293
51	MEDICAL COLLEGE OF GEORGIA	M M AVERNER	ARC	P L MCNEIL	NAG 2 1416	189
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51	MEDICAL UNIV OF SOUTH CAROLINA	M M AVERNER	ARC	S HOFFMAN	NAG 2 1415	451
51	MIAMI UNIV	C M WINGET	ARC	J Z KISS	NAG 2 1017	404
51	MIAMI UNIV	D REISS-BUBENHEIM	ARC	J Z KISS	NCC 2 1200	404
51	MICHIGAN STATE UNIV	B GUYNES	GSFC	L R MCCABE	NAG 8 1575	303
51	MISSISSIPPI STATE UNIV	B V GUYNES	MSFC	W W WILSON	NAG 8 1566	323
51	MISSISSIPPI STATE UNIV	M POWELL	JSC	J GILBERT	NAG 9 983	323
51	MONTANA STATE UNIV	C M WINGET	ARC	B H PYLE	NAG 2 1018	330
51	MONTANA STATE UNIV	M F VASQUES	ARC	B H PYLE	NCC 2 1143	331
51	MONTANA STATE UNIV	M T FLYNN	ARC	B H PYLE	NCC 2 5277	332
51	MOREHOUSE SCH MED	D R LISKOWSKY	ARC	W W SULLIVAN	NCC 2 936	190
51	MOREHOUSE SCH MED	J D ATKINSON	JSC	G L SANFORD	NAG 9 852	190
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51	MT SINAI SCH OF MED OF THE CUNY	N PELLIS	JSC	A MARTIN	NAG 9 816	376
51	MT SINAI SCH OF MED OF THE CUNY	W E HINDS	ARC	G R HOLSTEIN	NAG 2 946	376
51	NEW MEXICO HIGHLANDS UNIV	D S MCKAY	JSC	J C DEBACA	NAG 9 1168	353
51	NY UNIV	M M AVERNER	ARC	K D WALTON	NAG 2 1426	376
51	NY UNIV	W E HINDS	ARC	K D WALTON	NAG 2 951	376
51	NORTHERN ARIZONA UNIV	M L FONDA	ARC	J H WITTKKE	NCC 2 5356	26
51	OHIO STATE UNIV	M M AVERNER	ARC	M L EVANS	NAG 2 1411	405
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51	OREGON HEALTH SCIENCES UNIV	M M AVERNER	ARC	M V DANILCHIK	NAG 2 1199	419
51	OREGON STATE UNIV	M M AVERNER	ARC	T L LOMAX	NAG 2 1341	419
51	PENN STATE UNIV	M M AVERNER	ARC	D J COSGROVE	NAG 2 1342	430
51	PENN STATE UNIV	M M AVERNER	ARC	S G GILROY	NAG 2 1366	430
51	PENN STATE UNIV	M MEYER	GSFC	D F KASTING	NAG 5 3654	431
51	PENN STATE UNIV	R D MACELROY	ARC	S M ASSMANN	NAG 2 6026	430
51	PENN STATE UNIV	W M KNOTT	KSC	D J COSGROVE	NAG10 205	437
51	PURDUE UNIV	L KARR	MSFC	J MORRE	NAG 8 1147	219
51	PURDUE UNIV	M M AVERNER	ARC	D J MORRE	NAG 2 1344	217
51	PURDUE UNIV	R MACELROY	ARC	C MITCHELL	NAG 2 1389	217
51	RENSSELAER POLYTECH INST	M MEYER	GSFC	D P FERRIS	NAG 5 4557	378
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51	RUTGERS STATE UNIV - PISCATAWAY	A NURRIDIN	HQ	K C TING	NGT 5 50229	351
51	SAN JOSE STATE UNIV	K W CULLINGS	ARC	C A BRINEGAR	NCC 2 5311	59
51	SAN JOSE STATE UNIV	M L CORCORAN	ARC	R A FOX	NCC 2 1022	58
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51	STANFORD UNIV	K J SWANSON	ARC	R B LAUGHLIN	NCC 2 5298	68
51	STANFORD UNIV	M M AVERNER	ARC	D BERSTEIN	NAG 2 1354	61
51	STANFORD UNIV	R M WHEELER	KSC	C S CRIDDLE	NGT10 52619	70
51	STATE UNIV OF NY - STONY BROOK	C M WINGET	ARC	A D KRIKORIAN	NAG 2 1026	381
51	STATE UNIV OF NY - STONY BROOK	M M AVERNER	ARC	M A MORROW	NAG 2 1379	381
51	STATE UNIV OF NY COL - PURCHASE	M A MEYER	GSFC	D J FLYNN	NAG 5 4691	384
51	STATE UNIV OF NY COL	J F DOWDY	MSFC	G R WILSKY	NGT 8 52861	385
51	TEXAS A&M UNIV	M ANDERSON	JSC	G COTE	NCC 8 169	470
51	TEXAS A&M UNIV	M F VASQUES	ARC	M D DELP	NCC 2 1166	469
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51	TEXAS CHRISTIAN UNIV	B L GUYNES	MSFC	J G ALBRIGHT	NAG 8 1356	471
51	THE SCRIPPS REASERCH INST	M MEYER	GSFC	D JOYCE	NAG 5 3647	70
51	THE UNIV OF CENTRAL FLORIDA	C QUINCY	KSC	J F WEISHAMPEL	NAG10 278	172
51	THOMAS JEFFERSON UNIV	F A CUCINOTTA	JSC	C ILAKIS	NAG 9 1023	440
51	TULANE UNIV	A POHORILLE	ARC	E J JOHNSON	NCC 2 5011	236
51	TULANE UNIV	M M AVERNER	ARC	C A NICKERSON	NAG 2 1378	236
51	TULANE UNIV	N PELLIS	JSC	D HAMMOND	NAG 9 811	236
51	TULANE UNIV	N PELLIS	JSC	K O	NAG 9 826	236
51	UNIV HOUSTON-HOUSTON	R E GRINDELAND	ARC	A C VAILAS	NAG 2 1284	472
51	UNIV OF MASSACHUSETTS	M M AVERNER	ARC	P J MACCAFFERY	NAG 2 1438	298
51	UNIV OF MASSACHUSETTS	M M AVERNER	ARC	Y L WANG	NAG 2 1197	298
51	UNIV OF MED AND DENTISTRY	C W LLOYD	JSC	T P STEIN	NCC 2 1001	353
51	UNIV OF MED AND DENTISTRY	M M AVERNER	ARC	R S NOWAKOWSKI	NAG 2 1367	353
51	UNIV OF MINN	B GUYNES	MSFC	W S HU	NAG 8 1349	318
51	UNIV OF TEXAS MED BRAN - GALVESTON	C HAVEN	JSC	M MCGINNIS	NAS 9 96138	474
51	UNIV OF TEXAS MED BRAN - GALVESTON	C M WINGET	ARC	D NIESSEL	NCC 2 1160	474
51	UNIV OF TEXAS MED BRAN - GALVESTON	C W LLOYD	JSC	C W COOPER	NGT 9 47	474
51	UNIV OF TEXAS MED BRAN - GALVESTON	N G DAUNTON	ARC	A A PERACHIO	NGT 2 52216	474
51	UNIV OF TEXAS	D REISS-BUBENHEIM	ARC	S T BRADY	NAG 2 962	475
51	UNIV OF TX-HLTH SCI CTR-SAN ANTONIO	W E HINDS	ARC	M L WIEDERHOLD	NAG 2 952	474
51	UNIV	B V GUYNES	MSFC	E A GRIMM	NAG 8 1570	475
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51	UNIV	C W LLOYD	JSC	J WEINDER	NGT 9 46	476
51	UNIV	C W LLOYD	JSC	T DEIS	NAG 9 1142	476
51	UNIV	M M AVERNER	ARC	D W ROWE	NAG 2 1434	147
51	UNIV	M R POWELL	JSC	C FIFE	NAG 9 952	476
51	UNIV	N PELLIS	JSC	D DIMITRIJEVICH	NAG 9 813	475
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51	UNIV OF ALABAMA - BIRMINGHAM	B CAMPBELL	GSFC	D J WDOWIAK	NAG 5 4584	6
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51	UNIV OF ALABAMA - BIRMINGHAM	T OWEN	MSFC	L J DELUCAS	NCC 8 172	7
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51	UNIV OF ALABAMA - HUNTSVILLE	C R TALLEY	MSFC	F ROSENBERGER	NAG 8 1354	13
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51	UNIV OF ARIZONA	M M AVERNER	ARC	D DELUCA	NAG 2 1389	27
51	UNIV OF ARIZONA	M M AVERNER	ARC	M E TISCHER	NAG 2 1187	27
51	UNIV OF ARIZONA	R S BAIRD	JSC	K R SRIDHAR	NAG 9 923	38
51	UNIV OF ARIZONA	W E HINDS	ARC	B L MCNAUGHTON	NAG 2 949	27
51	UNIV OF CALIFORNIA - BERKELEY	M M AVERNER	ARC	D A WEISBLAT	NAG 2 1359	71
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51	UNIV OF CALIFORNIA - BERKELEY	M M AVERNER	ARC	L J FELDMAN	NAG 2 1351	71
51	UNIV OF CALIFORNIA - DAVIS	C M WINGET	ARC	T M HOBAN-HIGGINS	NAG 2 983	82
51	UNIV OF CALIFORNIA - DAVIS	D A REISS-BUBENHEIM	ARC	C A FULLER	NCC 2 886	85
51	UNIV OF CALIFORNIA - DAVIS	R D MACELROY	ARC	T M HOBAN-HIGGINS	NAG 2 1404	83
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51	UNIV OF CALIFORNIA - IRVINE	C W LLOYD	JSC	R E PURDY	NAG 9 1149	88
51	UNIV OF CALIFORNIA - IRVINE	W E HINDS	ARC	K M BALDWIN	NAG 2 942	87
51	UNIV OF CALIFORNIA - LOS ANGELES	M M AVERNER	ARC	L F HOFFMAN	NAG 2 1222	90
51	UNIV OF CALIFORNIA - LOS ANGELES	M M AVERNER	ARC	T J TIDBALL	NAG 2 1193	90
51	UNIV OF CALIFORNIA - LOS ANGELES	N PELLIS	JSC	E DIRKSEN	NAG 9 814	97
51	UNIV OF CALIFORNIA - LOS ANGELES	R E GRINDELAND	ARC	V R EDGERTON	NAG 2 1270	90
51	UNIV OF CALIFORNIA - LOS ANGELES	R E GRINDELAND	ARC	V R EDGERTON	NGT 2 52265	98
51	UNIV OF CALIFORNIA - SAN DIEGO	B GUYNES	MSFC	J A FRANGOS	NAG 8 1589	107
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51	UNIV OF CALIFORNIA - SAN DIEGO	M M AVERNER	ARC	L Z HOLLAND	NAG 2 1376	99
51	UNIV OF CALIFORNIA - SAN DIEGO	M MEYER	GSFC	D ARRHENIUS	NAG 5 4563	101
51	UNIV OF CALIFORNIA - SAN DIEGO	M MEYER	GSFC	G ARRHENIUS	NAG 5 9566	106
51	UNIV OF CALIFORNIA - SAN DIEGO	M MEYER	HQ	P L BADA	NAG 5 4546	101
51	UNIV OF CALIFORNIA - SAN FRANCISCO	C M WINGET	ARC	M H FULFORD	NAG 2 1086	110
51	UNIV OF CALIFORNIA - SAN FRANCISCO	N PELLIS	JSC	B BHATNAGAR	NAG 9 812	110
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51	UNIV OF CALIFORNIA - SANTA CRUZ	B N BEBOUT	ARC	J P ZEHR	NCC 2 5370	119
51	UNIV OF CALIFORNIA - SANTA CRUZ	C E WADE	ARC	C L ORTIZ	NGT 2 52230	119
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51	UNIV OF COLORADO - BOULDER	M H KLISS	ARC	A HOEHN	NCC 2 5327	142
51	UNIV OF COLORADO - BOULDER	M KLISS	ARC	G HEYENGA	NCC 2 1145	141
51	UNIV OF COLORADO - BOULDER	R T WHALEN	ARC	S J SIMSKE	NGT 2 52234	142
51	UNIV OF CONNECTICUT	B M BEBOUT	ARC	P T VISSCHER	NCC 2 1067	148
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51	UNIV OF HAWAII AT MANOA - HONOLULU	M M AVERNER	ARC	M Q MARTINDALE	NAG 2 1374	193
51	UNIV OF IDAHO - MOSCOW	D A REIS-BUBENHEIM	ARC	M E DESANTIS	NCC 2 862	200
51	UNIV OF ILLINOIS - CHICAGO CIRCLE	M M AVERNER	ARC	A LYSAKOWSKI	NAG 2 1358	209
51	UNIV OF IOWA	B GUYNES	MSFC	J WIENECK	NAG 8 1588	227
51	UNIV OF IOWA	B GUYNES	MSFC	T L PEEPLES	NAG 8 1593	227
51	UNIV OF IOWA	M ANDERSON	JSC	V G RODGERS	NAG 8 1591	227
51	UNIV OF IOWA	S GONDA	JSC	D W MURHAMMER	NAG 8 1592	227
51	UNIV OF KANSAS MEDICAL CTR	C M WINGET	ARC	J S TASH	NAG 2 1016	230
51	UNIV OF KENTUCKY	M M AVERNER	ARC	S DAUNERT	NAG 2 1383	230
51	UNIV OF LOUISVILLE	J W HINES	ARC	E WANG	NCC 2 5373	232

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51	UNIV OF MARYLAND - COLLEGE PARK	D E WALTER	GSFC	L W ADAMS	NAG 5 8678	261
51	UNIV OF MARYLAND - COLLEGE PARK	M M AVERNER	ARC	S I SUKHAREV	NAG 2 1352	252
51	UNIV OF MARYLAND BALTIMORE	B GUYNE	MSFC	K COLLINS	NAG 8 1573	269
51	UNIV OF MASSACHUSETTS - AMHERST	M M AVERNER	ARC	M E MUSGRAVE	NAG 2 1375	298
51	UNIV OF MASSACHUSETTS - AMHERST	M MEYER	GSFC	D M IRVINE	NAG 5 3853	299
51	UNIV OF MASSACHUSETTS - AMHERST	M MEYER	GSFC	L MARGULIS	NAG 5 8701	299
51	UNIV OF MICHIGAN - ANN ARBOR	D A REISS-BUBENHEIM	ARC	K I CLARK	NCC 2 856	312
51	UNIV OF MISSISSIPPI - MEDICAL CTR	M M AVERNER	ARC	J D DICKMAN	NAG 2 1204	324
51	UNIV OF MISSOURI - COLUMBIA	M M AVERNER	ARC	F W BOOTH	NAG 2 1372	325
51	UNIV OF NEVADA - RENO	M MEYER	GSFC	D A WHARTON	NAG 5 4471	336
51	UNIV OF NEW ORLEANS	M T FLYNN	ARC	Z ROSENZWEIG	NCC 2 5376	237
51	UNIV OF NORTH CAROLINA - CHAPEL HILL	B GUYNES	MSFC	C W CARTER	NAG 8 1580	395
51	UNIV OF NORTH CAROLINA - CHAPEL HILL	M M AVERNER	ARC	M YAMAUCHI	NAG 2 1188	384
51	UNIV OF NORTH TEXAS	M MEYER	GSFC	D S BRATERMAN	NAG 5 4881	477
51	UNIV OF OKLAHOMA - NORMAN	D BLAKE	ARC	R D ELMORE	NCC 2 5382	419
51	UNIV OF OKLAHOMA - NORMAN	M M AVERNER	ARC	J T THOMPSON	NAG 2 1427	418
51	UNIV OF OREGON - EUGENE	B M BEBOUT	ARC	R W CASTEBOLZ	NCC 2 5299	423
51	UNIV OF OREGON - EUGENE	C P MCKAY	ARC	R W CASTENHOLZ	NCC 2 5306	423
51	UNIV OF PENNSYLVANIA	P DOTY	MSFC	D A	NAG 8 1683	441
51	UNIV OF PITTSBURGH	M M AVERNER	ARC	C D BALABAN	NAG 2 1186	441
51	UNIV OF PITTSBURGH	N PELLIS	JSC	J M JESSUP	NAG 9 835	443
51	UNIV OF PUERTO RICO - MAYAGUEZ	R TRAVIS	SSC	F GILBES	NAG13 99029	540
51	UNIV OF PUGET SOUND	M A MEYER	GSFC	D PIERSON	NAG 5 8303	517
51	UNIV OF SAN FRANCISCO	C M WINGET	ARC	E V BENTON	NCC 2 893	119
51	UNIV OF SOUTH FLORIDA	C M WINGET	ARC	T SHIMIZU	NAG 2 1000	179
51	UNIV OF SOUTH FLORIDA	S R GONDA	JSC	J L BECKER	NAG 9 648	180
51	UNIV OF SOUTHWESTERN LOUISIANA	R D MACELROY	ARC	K H HASENSTEIN	NAG 2 1423	237
51	UNIV OF SOUTHWESTERN LOUISIANA	W M KNOTT	KSC	K H HASENSTEIN	NAG10 190	237
51	UNIV OF TENNESSEE - KNOXVILLE	D JAN	JPL	G S SAYLER	NAG 9 1080	457
51	UNIV OF TENNESSEE - KNOXVILLE	W KNOTT	KSC	R CONGES	NAG10 221	458
51	UNIV OF TEXAS - AUSTIN	M M AVERNER	ARC	S J ROUX	NAG 2 1347	477
51	UNIV OF TEXAS - AUSTIN	M M AVERNER	ARC	S M SHANKLAND	NAG 2 1349	477
51	UNIV OF TEXAS - AUSTIN	W M KNOTT	KSC	S J POUX	NAG10 202	482
51	UNIV OF TOLEDO	B GUYNES	MSFC	C A SCHALL	NAG 8 1578	416
51	UNIV OF VERMONT	T W HALSTEAD	HQ	P M LINTILHAC	NAGW 3604	492
51	UNIV OF VIRGINIA	D R MORRISON	MSFC	L W CHUNG	NCC 8 171	511
51	UNIV OF WASHINGTON	R D MACELROY	ARC	A O DENNIS	NAG 2 6039	517
51	UNIV OF WISCONSIN - MADISON	C M WINGET	ARC	B C WENTWORTH	NAG 2 1009	529
51	UNIV OF WISCONSIN - MADISON	M M AVERNER	ARC	E SCHULTZ	NAG 2 1220	529
51	UNIV OF WISCONSIN - MADISON	M M AVERNER	ARC	P H MASSON	NAG 2 1189	529
51	UNIV OF WISCONSIN - MADISON	M M AVERNER	ARC	P MASSON	NAG 2 1336	529
51	UNIV OF WISCONSIN - MADISON	R D MACELROY	ARC	P I LELKES	NAG 2 1380	529
51	UNIV OF WISCONSIN - MILWAUKEE	D R MORRISON	JSC	P I LELKES	NCC 8 173	538
51	UNIV OF WYOMING	D WEST	GSFC	S HOWELL	NAG 5 8738	539
51	UTAH STATE UNIV	M T FLYNN	ARC	L POWERS	NCC 2 5325	491
51	UTAH STATE UNIV	R WHEELER	KSC	D L BISHOP	NGT10 52609	492
51	VALDOSTA STATE UNIV	C P MCKAY	ARC	J A NIENOW	NCC 2 5303	192
51	WAKE FOREST UNIV	M M AVERNER	ARC	G K MUDAAY	NAG 2 1203	396
51	WASHINGTON UNIV - ST	W E HINDS	ARC	S M HIGHSTEIN	NAG 2 945	327
51	WAYNE STATE UNIV	S P COLOMBAN	ARC	M CONRAD	NCC 2 1189	315
51	WEST VIRGINIA UNIV	A NURRIDIN	GSFC	W T PETERJOHN	NGT 5 50009	528
51	WOODS HOLE OCEANOGRAPHIC INST	M MEYER	GSFC	D M HAYES	NAG 5 6680	301
51	YALE UNIV	B GUYNES	MSFC	R E APFEL	NAG 8 1351	150
51	YALE UNIV	D R BUBENHEIM	ARC	H S KESHISHIAN	NAG 2 1433	148
51	YALE UNIV	D REISS-BUBENHEIM	ARC	H S KESHISHIAN	NAG 2 948	148
51	YALE UNIV	M MEYER	GSFC	D SOLL	NAG 5 9554	150
54	ALABAMA A&M UNIV	M H KLISS	ARC	C A BEYL	NAG 2 1175	1
54	COLORADO STATE UNIV	A NURRIDIN	GSFC	G STEPHENS	NGT 5 50007	126
54	COLORADO STATE UNIV	M B EDEEN	JSC	T G SANDERS	NAG 9 1057	125
54	DILLARD UNIV	F SIX	MSFC	G ROCHON	NAG 8 1010	232
54	FISK UNIV	D J COLLINS	ARC	M GUNASEKARAN	NAG 2 6015	453
54	FLORIDA A&M UNIV	A JOYCE	SSC	Y P HSIEH	NAG13 41	186
54	MONTANA STATE UNIV	D J DES MARAIS	ARC	D M WARD	NCC 2 1073	331
54	OHIO STATE UNIV	M M AVERNER	ARC	M L EVANS	NAG 2 1190	405
54	OREGON STATE UNIV	D PETERSON	ARC	B YODER	NCC 2 5222	422

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54	TEXAS SOUTHERN UNIV	D BARTA	JSC	R F WILSON	NAG 9 988	471
54	THE UNIV OF CENTRAL FLORIDA	M COLLINS	KSC	D REINHART	NAG10 198	172
54	TULANE UNIV	A JOYCE	SSC	E ENGELHAUPT	NGT13 52717	236
54	TUSKEGEE UNIV	M DONALD	JSC	C K BONSI	NAG 9 1094	5
54	UNIV OF MASSACHUSETTS	S R GONDA	JSC	W J SHARTZ	NAG 8 1358	298
54	UNIV OF TEXAS-PAN AMERICAN	S GONZALEZ	JSC	R FOWLER	NAG 9 1169	474
54	UNIV OF ALABAMA - HUNTSVILLE	C M WINGET	ARC	M L LEWIS	NAG 2 985	7
54	UNIV OF ARIZONA	D L PETERSON	ARC	B D GANAPOL	NCC 2 5239	39
54	UNIV OF ARKANSAS MN CMP-FAYETTEVLE	C P MCKAY	ARC	T A KRAL	NGT 2 52243	42
54	UNIV OF CALIFORNIA - BERKELEY	D J DES MARAIS	ARC	N R PACE	NGT 2 52233	80
54	UNIV OF CALIFORNIA - SAN DIEGO	K ARRIGO	GSFC	D LUBIN	NAG 5 6414	102
54	UNIV OF CONNECTICUT	M S BURRELL	GSFC	R COLWELL	NGT 5 82	148
54	UNIV OF FLORIDA	A T LEE	JSC	J J WARWICK	NCC 9 110	177
54	UNIV OF MARYLAND BALTIMORE COUNTY	F A CUCINOTTA	JSC	B M RABIN	NAG 9 1190	271
54	UNIV OF PUERTO RICO-RIO PIEDRAS	W J LOVE	MSFC	B R WEINER	NAG 8 1709	540
54	UNIV OF WISCONSIN - MADISON	A L MATISAK	MSFC	W L ZHOU	NCC 8 129	536
54	UTAH STATE UNIV	R M WHEELER	KSC	B G BUGBEE	NAG 9 999	491
54	VIRGINIA COMMONWEALTH UNIV	C M BUNTIN	JSC	H B CHERMSIDE	NAS 9 19541	516
54	WASHINGTON STATE UNIV	M M AVERNER	ARC	N G LEWIS	NAG 2 1198	526
55	ALABAMA A&M UNIV	M H KLISS	ARC	C A BEYL	NAG 2 1160	1
55	CLARK UNIV	S S WEGENER	ARC	S R HERWITZ	NAG 2 1443	276
55	COLORADO STATE UNIV	D G SICKOREZ	JSC	M B STONE	NGT 9 11	126
55	CORNELL UNIV	D G SICKOREZ	JSC	J B HUNTER	NGT 9 17	375
55	CORNELL UNIV	D J BARTA	JSC	L D ALBRIGHT	NCC 9 86	374
55	CORNELL UNIV	J SAGER	KSC	C F JOHNSON	NGT10 52607	375
55	CORNELL UNIV	R WHEELER	KSC	L ALBRIGHT	NGT10 52623	375
55	HARVARD UNIV	J SAGER	KSC	M J HULLER	NGT10 52601	282
55	INST AMER INDIAN & AK NTV CULT & DEV	W LOVE	MSFC	S SULNA	NAG 8 1730	353
55	IOWA STATE UNIV	H LANE	JSC	D OLSEN	NCC 9 100	224
55	LOUISIANA STATE UNIV - BATON ROUGE	W M KNOTT	KSC	M E MUSGRAVE	NAG10 139	234
55	MISSISSIPPI VALLEY STATE UNIV	G CARTER	JSC	R BAHADUR	NAG13 98004	323
55	MISSISSIPPI VALLEY STATE UNIV	R TRAVIS	JSC	R BAHUR	NAG13 99026	324
55	OHIO STATE UNIV	G ETHERIDGE	KSC	F SACK	NAG10 263	408
55	PRAIRIE VIEW A&M UNIV	D S MCKAY	JSC	R CUERO	NAG 9 1241	462
55	TEXAS A&M UNIV	C T BOURLAND	JSC	R L RICHTER	NAG 9 1119	469
55	TEXAS A&M UNIV	D G SICKOREZ	JSC	R W WEAVER	NGT 9 34	470
55	TEXAS A&M UNIV	K HENDERSON	JSC	D LANGHANS	NAG 9 894	468
55	TEXAS SOUTHERN UNIV	L ARMENDARIZ	JSC	G A JEJEDOWO	NAG 9 1227	471
55	TEXAS SOUTHERN UNIV	L ARMENDARIZ	JSC	O A JEJELOWO	NAG 9 1194	471
55	TUSKEGEE UNIV	L M ARMENDARIZ	JSC	C BONSI	NGT 9 37	6
55	UNIV OF CALIFORNIA - DAVIS	S S WEGENER	ARC	S USTIN	NAG 2 1442	83
55	UNIV OF FLORIDA	W M KNOTT	KSC	R J FERL	NAG10 145	176
55	UNIV OF MAINE - ORONO	B GRAHAM	JSC	S SADER	NAG13 98008	238
55	UNIV OF VIRGINIA	R WHEELER	KSC	A MILLS	NGT10 52620	511
55	UTAH STATE UNIV	D BARTA	JSC	B BUGBEE	NAG 9 1237	491
55	UTAH STATE UNIV	G C JAHNS	ARC	W F CAMPBELL	NCC 2 831	491
56	BAYLOR COLLEGE OF MED	C LLOYD	JSC	B J SCHWARTZ	NAG 9 1158	461
56	BAYLOR COLLEGE OF MED	C M BUNTIN	JSC	A LEBLANC	NAS 9 19404	461
56	BAYLOR COLLEGE OF MED	C R TALLEY	MSFC	B YOFE	NAG 8 1383	461
56	BAYLOR COLLEGE OF MED	L C SHACKELFORD	JSC	A D LE BLANC	NCC 9 61	461
56	DARTMOUTH COLLEGE	D BELL	JSC	J BUCKEY	NAG 9 1088	337
56	DREXEL UNIV	J S LING	GRC	S DUBIN VMD	NAG 3 1715	427
56	HOWARD UNIV	R SRIDHAR	MSFC	R SRIDHAR	NCC 8 184	157
56	IOWA STATE UNIV	N R PELLIS	JSC	C A HEATH	NAG 9 827	223
56	JOHNS HOPKINS UNIV	F A CUCINOTTA	JSC	J DICELLO	NGT 9 50	250
56	MASSACHUSETTS INST OF TECH	B WOOLFORD	JSC	D J NEWMAN	NAG 9 1003	293
56	MASSACHUSETTS INST OF TECH	S SAWYER	SSC	C M OMAN	NAS 9 19536	294
56	MEDICAL UNIV OF SOUTH CAROLINA	B GUYNES	MSFC	A J SMOLKA	NAG 8 1385	451
56	MOREHOUSE COLLEGE	K KRISHEN	JSC	K DUTT	NAG 9 964	189
56	MOREHOUSE SCH MED	B L WHITE	HQ	M L THERRY-PALMER	NCCW 83	190
56	MOREHOUSE SCH MED	C SAMS	JSC	M THIERRY-PALMER	NCC 9 112	190
56	MOREHOUSE SCH MED	K KRISHEN	JSC	R SRIDARAN	NAG 9 963	190
56	MOREHOUSE SCH MED	L ARMENDARIZ	JSC	M THIERRY-PALMER	NCC 9 53	190
56	NY UNIV	F A CUCINOTTA	JSC	F J BURNS	NAG 9 1024	377

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56	PENN STATE UNIV -HERSHEY MED	C W LLOYD	JSC	C A RAY	NAG 9 1034	429
56	PENN STATE UNIV	M KAMMAN	JSC	P CAVANAGH	NAS 9 99095	437
56	SAN FRANCISCO STATE UNIV	J E GREENLEAF	ARC	P R BARNES	NCC 2 5318	57
56	STANFORD UNIV	K A SOUZA	ARC	S A SCHENDEL	NCC 2 1010	66
56	STANFORD UNIV	R MAH	ARC	S JEFFREY	NCC 2 5381	68
56	STANFORD UNIV	R T WHALEN	ARC	S A NAPEL	NCC 2 5186	67
56	TUFTS UNIV	P M DOTY	MSFC	D L KAPLAN	NAG 8 1699	298
56	TULANE UNIV	S R GONDA	JSC	T HAMMOND	NAG 8 1362	236
56	UNIV OF MASSACHUSETTS	N PELLIS	JSC	F M STEWART	NAG 9 820	298
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56	UNIV OF MED AND DENTISTRY	C W LLOYD	JSC	T P STEIN	NAG 9 1162	353
56	UNIV OF TEXAS MED BRAN - GALVESTON	A LEE	JSC	A FERRANDO	NAS 9 97147	474
56	UNIV OF TEXAS MED BRAN - GALVESTON	C LLOYD	JSC	A A FERRANDO	NAG 9 1155	474
56	UNIV OF TEXAS MED BRAN - GALVESTON	R BILUCA	JSC	W A WASSON	NAG 9 859	474
56	UNIV OF TEXAS MED BRAN - GALVESTON	V CHOPPA	MSFC	V CHOPPA	NCC 8 170	474
56	UNIV OF TEXAS	C M SMITH	JSC	C G BLOMQVIST	NAS 9 19540	475
56	UNIV OF TEXAS	C W LLOYD	JSC	C G CRANDALL	NAG 9 1033	475
56	UNIV OF TX-HLTH SCI CTR-SAN ANTONIO	S GONDA	JSC	J M JESSUP	NAG 9 1206	474
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56	UNIV	C SAWIN	JSC	B BUTLER	NAG 9 1040	476
56	UNIV	J T JAMES	JSC	A HOLIAN	NAG 9 1144	476
56	UNIV	J VILLARREAL	JSC	P T STEIN	NAS 9 19409	353
56	UNIV OF ALABAMA - HUNTSVILLE	S SPEARMAN	MSFC	M BANISH	NAG 8 1476	14
56	UNIV OF ARIZONA	J SCHONFELD	ARC	J SZIVEK	NCC 2 5375	39
56	UNIV OF ARKANSAS - LITTLE ROCK	J D SMITH	ARC	C M COMPADRE	NGT 2 52242	42
56	UNIV OF CALIFORNIA - DAVIS	J E GREENLEAF	ARC	P MOLE	NGT 2 52238	86
56	UNIV OF CALIFORNIA - SAN DIEGO	C M WINGET	ARC	R A PEDOWITZ	NCC 2 978	107
56	UNIV OF CALIFORNIA - SAN DIEGO	D R MORRISON	JSC	R L SAH	NAG 8 1571	106
56	UNIV OF CALIFORNIA - SAN DIEGO	E M HOLTON	ARC	C ROGERS	NCC 2 1133	108
56	UNIV OF CALIFORNIA - SAN DIEGO	E M HOLTON	ARC	C ROGERS	NCC 2 1196	108
56	UNIV OF CALIFORNIA - SAN DIEGO	S G SAWYER	JSC	J B WEST	NAS 9 19434	107
56	UNIV OF CALIFORNIA - SAN FRANCISCO	C W LLOYD	JSC	J P MURNANE	NAG 9 1261	110
56	UNIV OF CALIFORNIA - SAN FRANCISCO	D BAUMANN	JSC	T LANG	NAS 9 99055	110
56	UNIV OF FLORIDA	D A TIPTON	KSC	A H NEIMS	NAS10 96004	176
56	UNIV OF IOWA	N PELLIS	JSC	D W MURHAMMER	NAG 9 824	227
56	UNIV OF NEW MEXICO-ALBUQUERQUE	K A SOUZA	ARC	D ALVERSON	NCC 2 5345	358
56	UNIV OF PENNSYLVANIA	C SAMS	JSC	J R HOYER	NAG 9 1047	441
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56	UNIV OF ROCHESTER	B LONA	ARC	S R SCHWID	NCC 2 5321	386
56	UNIV OF SOUTHERN COLORADO	T T SCHEGEL	JSC	J DEPALMA	NAG 9 1257	146
56	UNIV OF VIRGINIA	B GUYNES	MSFC	L K CHUNG	NAG 9 823	510
56	UNIV OF WASHINGTON	B LUNA	ARC	J BOWEN	NCC 2 5322	524
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59	ALABAMA A&M UNIV	B J COLLINS	ARC	P G KALE	NAG 2 1130	1
59	ARIZONA STATE UNIV	D G SICKCOREZ	JSC	R D SEIDLER	NGT 9 21	26
59	ARIZONA STATE UNIV	R A GRYMES	ARC	J D FARMER	NCC 2 1051	25
59	BAYLOR COLLEGE OF MED	B CARPENTER	GSFC	D YOFFE	NAG 5 3712	461
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59	BAYLOR COLLEGE OF MED	F A CUCINOTTA	JSC	L E PETERSON	NAG 9 1052	461
59	BAYLOR COLLEGE OF MED	L SHACKE	JSC	A LEBLANC	NAG 9 1133	461
59	BOSTON COLLEGE	L KARR	MSFC	D KIRSCHNER	NAG 8 1304	272
59	BOSTON UNIV	V SCHNEIDER	GSFC	M F HOLICK	NAG 5 3991	272
59	BRANDEIS UNIV	C W LLOYD	JSC	J LACKNER	NAG 9 1037	276
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59	CALIFORNIA INST OF TECH	P DOTY	MSFC	W K RHIM	NAG 8 1743	49
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59	COLORADO STATE UNIV	K C SABLAN	ARC	G R COULTER	NCC 2 1099	125
59	COLORADO STATE UNIV	R A GRYMES	ARC	G R COULTER	NCC 2 907	125
59	COLORADO STATE UNIV	S SCHIMMERLING	GSFC	C A WALDREN	NAG 5 3768	123
59	COLORADO STATE UNIV	W M KNOTT	KSC	A N REDDY	NAG10 234	125
59	COLUMBIA UNIV	F A CUCINOTTA	JSC	E J HALL	NAG 9 1148	366
59	CORNELL UNIV	C T BOURLAND	JSC	C J GREENWALT	NAG 9 1118	374
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59	EAST TENNESSEE STATE UNIV	B GUYNES	MSFC	L WILSON	NAG 8 1375	453
59	GEORGIA STATE UNIV	R E GRINDELAND	ARC	D A WASHBURN	NAG 2 1271	188
59	HARVARD UNIV	R A GRYMES	ARC	A H KNOLL	NCC 2 1053	281
59	HARVARD UNIV	W J WAGNER	GSFC	D H PARKINSON	NAG 5 6554	279
59	INDIANA UNIV	L SMITH	GSFC	F PAVALKO	NGT 5 50291	215
59	IOWA STATE UNIV	D JAN	JPL	M D PORTER	NAG 9 1191	223
59	IOWA STATE UNIV	LP CHAMBERS	GSFC	M POTTER	NAG 5 6353	222
59	JOHNS HOPKINS UNIV	J A KAYE	GSFC	J YEE	NAG 5 7552	244
59	KANSAS STATE UNIV	W M KNOTT	KSC	J A GUIKEMA	NAG10 142	228
59	LOMA LINDA UNIV	W SCHIMMERLING	GSFC	D NELSON	NCC 5 236	55
59	LOUISIANA STATE UNIV - BATON ROUGE	D L DEVINCENZI	ARC	J R BATTISTA	NAG 2 1320	233
59	MARQUETTE UNIV	R E GRINDELAND	ARC	R H FITTS	NAG 2 1267	528
59	MARQUETTE UNIV	V ELLERBEE	JSC	R H FITTS	NAS 9 18768	528
59	MASSACHUSETTS INST OF TECH	J DETROVE	JSC	C M OMAN	NAG 9 1004	293
59	MASSACHUSETTS INST OF TECH	V SCHNEIDER	GSFC	R COHEN	NAG 5 4989	287
59	MISSISSIPPI GULF COAST COMM COLLEGE	A JOYCE	SSC	J BRYAN	NAG13 99015	322
59	MOREHOUSE SCH MED	B LUNA	ARC	G L SANFORD	NGT 2 52239	190
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59	MT SINAI SCH OF MED OF THE CUNY	V SCHNEIDER	GSFC	H KAUFMANN	NAG 5 6276	376
59	NORTH CAROLINA STATE UNIV	D P LISKOWSKY	GSFC	E DAVIES	NAG 5 3743	392
59	NORTHEASTERN OHIO UNIV COL OF MED	M M AVERNER	GSFC	W J LANDIS	NAG 5 7789	404
59	NORTHEASTERN UNIV	P DOTY	MSFC	A KARMA	NAG 8 1668	297
59	OGLALA LAKOTA COLLEGE	T GULL	GSFC	D J DEMAREST	NAG 9 967	452
59	OHIO STATE UNIV	G FOGLEMAN	GSFC	D WOODS	NAG 5 6344	406
59	OHIO STATE UNIV	J DETROVE	JSC	D D WOODS	NAG 9 1005	408
59	OHIO STATE UNIV	J M ORASANU	ARC	P J SMITH	NCC 2 830	408
59	OHIO UNIV	J M ORASANU	ARC	C E MCCOY	NCC 2 827	409
59	OREGON STATE UNIV	T SCOTT	GSFC	D LOMAX	NAG 5 6373	420
59	PENN STATE UNIV	C LLOYD	JSC	J A PAWELCZYK	NAG 9 1173	437
59	PENN STATE UNIV	M AVERNER	GSFC	N V FEDOROFF	NAG 5 3970	431
59	PENN STATE UNIV	M AVERNER	GSFC	R CYR	NAG 5 4840	432
59	PENN STATE UNIV	R A GRYMES	ARC	H OHMOTO	NCC 2 1057	438
59	PONCE SCH OF MED	H L D'ANTONI	ARC	J L MATTA	NAG 2 1149	539
59	RICE UNIV	L CHAMBERS	GSFC	L MCINTIRE	NAG 5 4072	464
59	RUTGERS STATE UNIV - PISCATAWAY	G FOGLEMAN	GSFC	H JANES	NAG 5 6011	349
59	SAN DIEGO STATE UNIV	J BOYCE	GSFC	D RAYLE	NAG 5 6060	56
59	SAN FRANCISCO STATE UNIV	A PLAZA	JSC	D PALMER	NAS 9 19410	57
59	SAN JOSE STATE UNIV	H L D'ANTONI	ARC	E P METZGER	NCC 2 5344	60
59	SAN JOSE STATE UNIV	K C SABLAN	ARC	A RODRIGUEA	NCC 2 960	58
59	SAN JOSE STATE UNIV	K SABLAN	ARC	A RODRIGUEZ	NCC 2 6042	60
59	SOUTHERN UNIV & A&M COLLEGE	G J FISHMAN	MSFC	J G STACY	NAG 8 1625	235
59	SPELMAN COLLEGE	D O FRAIZER	MSFC	O SCRIVEN	NCC 8 194	191
59	STANFORD UNIV	A JANETOS	GSFC	P MATSON	NAG 5 6615	63
59	STANFORD UNIV	R T WHALEN	ARC	B LUSIGNAN	NGT 2 52246	69
59	STATE UNIV OF NY - ALBANY	K HIGGINBOTHAN	MSFC	W M GIBSON	NCC 8 125	380
59	STATE UNIV OF NY - STONY BROOK	V SCHNEIDER	GSFC	C T RUBIN	NAG 5 3950	382
59	TENNESSEE TECHNOLOGICAL UNIV	D HATHAWAY	MSFC	S HAN	NAG 8 1631	456
59	TEXAS A&M UNIV	M A SHEPANER	GSFC	M D DELP	NAG 5 3754	467
59	TEXAS TECH UNIV	D L HENNINGER	JSC	J L SMITH	NCC 9 108	472
59	THE SCRIPPS REASERCH INST	L J CAROFF	ARC	R GHADIRI	NCC 2 1055	70
59	THE UNIV OF CENTRAL FLORIDA	C D QUINCY	KSC	D W JOHNSON	NAG10 276	172
59	THE UNIV OF CENTRAL FLORIDA	J SAGER	KSC	R W JOHNSON	NAG10 147	171
59	TUFTS UNIV	D JAN	JPL	S P KOUNAVES	NAG 9 1182	298
59	TUSKEGEE UNIV	R WHEELER	KSC	D MARTLEY	NAG10 209	5
59	TUSKEGEE UNIV	S POTTER	KSC	D HILL	NAG10 281	5
59	UNIV HOUSTON-HOUSTON	C W LLOYD	JSC	D A MARTINEZ	NAG 9 1152	473
59	UNIV OF TEXAS MED BRAN - GALVESTON	T SCOTT	HQ	A PERACHIO	NAG 5 8009	474
59	UNIV OF TEXAS	A M LEE	JSC	C G BLOMQVIST	NAS 9 19429	475
59	UNIV OF TEXAS	L P CHAMBERS	GSFC	G BLOMQVIST	NAG 5 6317	475
59	UNIV OF TEXAS	V SCHNEIDER	GSFC	B LEVINE	NAG 5 4846	475
59	UNIV OF TX-HLTH SCI CTR-SAN ANTONIO	W M KNOTT	KSC	M L WIEDERHOLD	NAG10 180	474
59	UNIV	J M YELLE	JSC	R F LODATO	NCC 9 103	476
59	UNIV	M AVERNER	GSFC	D ROWE	NAG 5 6316	147

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59	UNIV	M R POWELL	JSC	B D BUTLER	NCC 9 90	476
59	UNIV	V SCHNEIDER	GSFC	B BUTLER	NAG 5 6176	475
59	UNIV OF ALABAMA - BIRMINGHAM	B GUYNES	GSFC	L J DELUCAS	NAG 8 1146	7
59	UNIV OF ALABAMA - BIRMINGHAM	D K COLLINS	MSFC	L J DELUCAS	NAS 8 40189	7
59	UNIV OF ALABAMA - HUNTSVILLE	P M DOTY	MSFC	M T ZUGRAV	NAG 8 1456	14
59	UNIV OF ALABAMA - HUNTSVILLE	P M DOTY	MSFC	R J NAUMANN	NAG 8 1464	14
59	UNIV OF ALABAMA - HUNTSVILLE	S SPEARMAN	MSFC	F ROSENBERGER	NCC 8 99	15
59	UNIV OF ARIZONA	J L PRIVETTE	GSFC	A HUETE	NAG 5 7470	32
59	UNIV OF ARIZONA	R WHEELER	KSC	J L CUELLO	NAG10 255	38
59	UNIV OF CALIFORNIA - BERKELEY	A C JANETOS	GSFC	T L BENNING	NAG 5 6593	74
59	UNIV OF CALIFORNIA - DAVIS	R E GRINDELAND	ARC	C A FULLER	NAG 2 1265	83
59	UNIV OF CALIFORNIA - DAVIS	V SCHNEIDER	GSFC	B HORWITZ	NAG 5 3959	83
59	UNIV OF CALIFORNIA - DAVIS	V SCHNEIDER	GSFC	C A FULLER	NAG 5 4320	83
59	UNIV OF CALIFORNIA - DAVIS	V SCHNEIDER	GSFC	D MURAKAMI	NAG 5 6440	83
59	UNIV OF CALIFORNIA - DAVIS	V SCHNEIDER	HQ	D M MURAKAMI	NAGW 4552	84
59	UNIV OF CALIFORNIA - IRVINE	A POHORILLE	ARC	J K LANYI	NCC 2 1070	89
59	UNIV OF CALIFORNIA - IRVINE	A POHORILLE	ARC	J K LANYI	NCC 2 5333	89
59	UNIV OF CALIFORNIA - IRVINE	S ROBBINS	MSFC	A MCPHERSON	NAS 8 00017	88
59	UNIV OF CALIFORNIA - IRVINE	S ROBBINS	MSFC	A MCPHERSON	NAS 8 00019	89
59	UNIV OF CALIFORNIA - IRVINE	S ROBBINS	MSFC	A MCPHERSON	NAS 8 39763	89
59	UNIV OF CALIFORNIA - LOS ANGELES	G L SPEYER	DFRC	P S COWINGS	NCC 2 804	98
59	UNIV OF CALIFORNIA - LOS ANGELES	M AVERNER	GSFC	A D GRINNELL	NAG 5 3964	92
59	UNIV OF CALIFORNIA - LOS ANGELES	M C GRENISEN	JSC	R EDGERTON	NAG 9 970	97
59	UNIV OF CALIFORNIA - LOS ANGELES	R A GRYMES	ARC	B RUNNEGAR	NCC 2 1050	98
59	UNIV OF CALIFORNIA - LOS ANGELES	V SCHNEIDER	GSFC	J TIDBALL	NAG 5 4837	93
59	UNIV OF CALIFORNIA - SAN DIEGO	F M SULZMAN	GSFC	K PRISK	NAG 5 3742	100
59	UNIV OF CALIFORNIA - SAN DIEGO	G ASRAR	GSFC	R GOERICKE	NGT 5 30122	109
59	UNIV OF CALIFORNIA - SAN DIEGO	J M YELLE	JSC	M G ZEIGLER	NCC 9 106	109
59	UNIV OF CALIFORNIA - SAN DIEGO	M AVERNER	GSFC	J A FRANGOS	NAG 5 4848	101
59	UNIV OF CALIFORNIA - SAN DIEGO	P MOUMNTJOY	HQ	P J MILLS	NCC 9 105	109
59	UNIV OF CALIFORNIA - SAN DIEGO	S M MCCULLUM	JSC	J B WEST	NAS 9 98124	107
59	UNIV OF CALIFORNIA - SAN FRANCISCO	J VILLARREAL	JSC	D KANAS	NAS 9 19411	110
59	UNIV OF CALIFORNIA - SAN FRANCISCO	M H NEW	ARC	M A WILSON	NCC 2 5295	110
59	UNIV OF CALIFORNIA - SAN FRANCISCO	V SCHNEIDER	GSFC	D GLOBUS	NAG 5 6374	110
59	UNIV OF CALIFORNIA - SANTA CRUZ	M FONDA	ARC	J PEARSE	NCC 2 5351	118
59	UNIV OF COLORADO - BOULDER	M AVERNER	GSFC	A STAEHELIN	NAG 5 3967	129
59	UNIV OF COLORADO - BOULDER	R A GRYMES	ARC	B JAKOSKI	NCC 2 1052	141
59	UNIV OF COLORADO - BOULDER	S J LAMBING	MSFC	G MORGENTHAUER	NCC 8 131	142
59	UNIV OF CONNECTICUT	G ETHERAGE	GSFC	Y LI	NAG10 246	147
59	UNIV OF HOUSTON - CLEAR LAKE	M POWELL	JSC	R S CHHIKARA	NAG 9 1083	476
59	UNIV OF ILLINOIS - CHICAGO CIRCLE	T SCOTT	GSFC	A LYSAKOWSKI	NAG 5 4593	209
59	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	J R ROGERS	MSFC	C F ZOKOSKI	NAG 8 1376	213
59	UNIV OF IOWA	L SMITH	GSFC	C V GISOLFI	NGT 5 50156	227
59	UNIV OF KENTUCKY	D JAN	GSFC	C A GRIMES	NAG 5 4594	231
59	UNIV OF MARYLAND - COLLEGE PARK	L P CHAMBERS	GSFC	S I SUKHAVREV	NAG 5 6526	257
59	UNIV OF MISSOURI - COLUMBIA	M AVERNER	GSFC	T A JONES	NAG 5 4607	325
59	UNIV OF MISSOURI - COLUMBIA	R P KEHOE	JSC	G M CHIPPENDALE	NAG 9 1230	326
59	UNIV OF NORTH TEXAS HLTH SCI	V SCHNEIDER	GSFC	M SMITH	NAG 5 3744	477
59	UNIV OF NORTH TEXAS HLTH SCI	V SCHNEIDER	GSFC	P B RAVEN	NAG 5 4668	477
59	UNIV OF PENNSYLVANIA	C W LLOYD	JSC	H VAN D	NAG 9 1161	441
59	UNIV OF PENNSYLVANIA	J ELLISON	GSFC	N I BADLER	NAG 5 3990	440
59	UNIV OF PENNSYLVANIA	N PELLIS	JSC	P S AYYASWAMY	NAG 9 817	441
59	UNIV OF PITTSBURGH	C W LLOYD	JSC	T H MONK	NAG 9 1036	443
59	UNIV OF PUERTO RICO - MAYAGUEZ	J SAYER	KSC	G COLON	NAG10 257	540
59	UNIV OF ROCHESTER	C TALLEY	MSFC	D WU	NAG 8 1382	386
59	UNIV OF SOUTHERN CALIFORNIA	B WOOLFORD	JSC	U NEWMANN	NAG 9 1165	122
59	UNIV OF TENNESSEE - KNOXVILLE	F A CUCINOTTA	JSC	L W TOWNSEND	NAG 9 1123	458
59	UNIV OF TENNESSEE - KNOXVILLE	G BADHWAR	JSC	J S NEAL	NAG 9 1121	457
59	UNIV OF TEXAS - AUSTIN	T SCOTT	GSFC	S J ROUX	NAG 5 3887	478
59	UNIV OF TEXAS - EL PASO	A R ROCHA	JSC	L E MURR	NAG 9 1100	486
59	UNIV OF UTAH	W SHIMMERLING	GSFC	R WARTERS	NAG 5 4452	488
59	UNIV OF WASHINGTON	M AVERNER	GSFC	D CLELAND	NAG 5 6328	519
59	UNIV OF WISCONSIN - LA CROSSE	M M AVERNER	ARC	S O SENDER	NCC 2 1163	529
59	UNIV OF WISCONSIN - MADISON	C LLYOD	KSC	D SCHOELLER	NAG 9 1039	535
59	UNIV OF WISCONSIN - MADISON	J DETROVE	JSC	B S CALDWELL	NAG 9 1008	535

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59	UTAH STATE UNIV	R WHEELER	KSC	P GROSSEL	NGT10 52617	492
59	VANDERBILT UNIV	A LEE	JSC	D ROBERTSON	NAS 9 19483	459
59	VANDERBILT UNIV	M PHELPS	HQ	M GOLDBARB	NGT 5 50180	460
59	VANDERBILT UNIV	R GRUGEL	MSFC	A V ANIKJMER	NAG 8 1745	459
59	WAKE FOREST UNIV	VSCHNEIDER	GSFC	R P HOLMES	NAG 5 3968	396
59	WASHINGTON STATE UNIV	M AVERNER	GSFC	B POOVAIAH	NAG 5 4841	526
59	WASHINGTON UNIV - ST	C SAWIN	GSFC	D E ANGELAKI	NAG 5 8194	329
59	WRIGHT STATE UNIV	A NURRIDIN	HQ	S R MOHLER	NGT 5 30091	417
61	CLEVELAND STATE UNIV	B GUYNES	MSFC	J M BELOVICH	NAG 8 1584	401
61	MOREHOUSE COLLEGE	R RICHMOND	MSFC	G L SANFORD	NAG 8 1636	189
61	OLD DOMINION UNIV	A T POPE	LARC	F G FREEMAN	NGT 1 52219	505
61	OLD DOMINION UNIV	A T POPE	LARC	G D COATES	NGT 1 52220	505
61	RUTGERS STATE UNIV OF NJ NEW BRUNS	J B HARTLEY	GSFC	Z KOLBER	NAS 5 99138	352
61	STANFORD UNIV	R W REMINGTON	ARC	J E GABRIELI	NCC 2 5261	67
61	TEXAS WOMAN	R SAULSBERRY	JSC	N E MEAGHER	NAG 9 1192	472
61	UNIV HOUSTON-HOUSTON	D HARM	JSC	R B LOFTIN	NCC 9 57	473
61	UNIV OF MICHIGAN - ANN ARBOR	C LLOYD	JSC	G L AMIDON	NAG 9 1154	311
61	UNIV OF PITTSBURGH	B GUYNES	MSFC	X L WU	NAG 8 1587	442
61	UNIV OF TENNESSEE - KNOXVILLE	A NURRIDIN	HQ	G SAYLER	NGT 5 50206	458
62	FLORIDA A&M UNIV	R MCKINNEY	KSC	B MCCUNE	NAG10 248	166
62	GEORGIA INST OF TECH	J M ORASANU	ARC	K J KNOESPEL	NCC 2 933	186
62	HERITAGE COLLEGE	R TRAVIS	SSC	J W FALCO	NAG13 99027	517
62	OLD DOMINION UNIV	P C SCHUTTE	LARC	A A FINK	NGT 1 52221	505
62	OLD DOMINION UNIV	P C SCHUTTE	LARC	D DAVIS	NAG 1 2101	502
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62	TUSKEGEE UNIV	D BARTA	JSC	W A HILL	NCC 9 51	6
69	BRADLEY UNIV	L J PRINZEL	LARC	D A MONTGOMERY	NAG 1 2263	201
69	ESTRN VA MED SCH-ESTRN VA MED AUTH	A T POPE	LARC	O S PALSSON	NCC 1 310	495
69	GEORGE MASON UNIV	S M CASNER	ARC	D B DAVIS	NAG 2 1289	495
69	GEORGIA INST OF TECH	J M ORASANU	ARC	U M FISCHER	NCC 2 1124	186
69	MASSACHUSETTS INST OF TECH	S C LOZITO	ARC	R J HANSMAN	NAG 2 1299	284
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69	MISSISSIPPI STATE UNIV	M R ENDSLEY	LARC	D B KABER	NAG 1 2295	322
69	MISSISSIPPI STATE UNIV	W K ANDERSON	LARC	D B KABER	NCC 1 330	323
69	NORTH CAROLINA STATE UNIV	I BARSHI	ARC	D H MERSHON	NAG 2 1281	392
69	NORTHWESTERN UNIV	B G KANKI	ARC	E J CZEPIEL	NCC 2 1098	204
69	OHIO STATE UNIV	J M ORASANU	ARC	C E MCCOY	NCC 2 1130	408
69	OHIO STATE UNIV	J M ORASANU	ARC	P J SMITH	NCC 2 1123	408
69	OHIO UNIV	J M ORASANU	ARC	C E MCCOY	NCC 2 1030	409
69	OLD DOMINION UNIV	A T POPE	LARC	F G FREEMAN	NAG 1 2105	502
69	OLD DOMINION UNIV	A T POPE	LARC	F G FREEMAN	NCC 1 364	504
69	OLD DOMINION UNIV	A T POPE	LARC	M W SCERBO	NAG 1 2254	503
69	OLD DOMINION UNIV	A T POPE	LARC	T L DICKINSON	NAG 1 2252	503
69	OLD DOMINION UNIV	A T POPE	LARC	T M EISCHEID	NGT 1 52192	504
69	OREGON GRADUATE INST OF SCI & TECH	A J AHUMADA	ARC	M PAVEL	NCC 2 811	419
69	OREGON GRADUATE INST OF SCI & TECH	A J AHUMADA	ARC	M PAVEL	NCC 2 1190	419
69	PENN STATE UNIV	A T POPE	LARC	W J RAY	NAG 1 2095	429
69	PENN STATE UNIV	L J PRINZEL	LARC	W J RAY	NAG 1 2273	430
69	SAN FRANCISCO STATE UNIV	J M ORASANU	ARC	K L MOSIER	NAG 2 1285	56
69	SAN JOSE STATE UNIV	R K DISMUKES	ARC	K JORDAN	NCC 2 327	58
69	SAN JOSE STATE UNIV	R KDISMUKES	ARC	K P JORDAN	NCC 2 798	58
69	SAN JOSE STATE UNIV	R W REMINGTON	ARC	M VAN SELST	NCC 2 1043	58
69	SAN JOSE STATE UNIV	V M BATTISTE	ARC	L FEUNG	NAG 2 1223	57
69	TEXAS TECH UNIV	J BREDEKAMP	GSFC	P R DELUCIA	NCC 2 5257	472
69	THE CATHOLIC UNIV OF AMERICA	A T POPE	LARC	R PARASURAMAN	NAG 1 2103	158
69	THE CATHOLIC UNIV OF AMERICA	P C SHUTTE	LARC	S M GALSTER	NGT 1 52190	162
69	THE CATHOLIC UNIV OF AMERICA	W JOHNSON	ARC	R PARASURAMAN	NAG 2 1096	158
69	UNIV OF ARKANSAS - LITTLE ROCK	C SAWIN	JSC	P A TESCH	NAG 9 1061	41
69	UNIV OF CALIFORNIA - IRVINE	J MULLIGAN	ARC	T M DZMURA	NCC 2 5378	89
69	UNIV OF CALIFORNIA - SAN DIEGO	S CASNER	ARC	E HUTCHINS	NCC 2 996	108
69	UNIV OF CALIFORNIA - SAN DIEGO	S M CASNER	ARC	E L HUTCHENS	NCC 2 1032	108

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69	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	D C FOYLE	ARC	C D WICKENS	NAG 2 1120	210
69	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	I BARSHI	ARC	H L TAYLOR	NAG 2 1282	210
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69	UNIV OF OREGON - EUGENE	I BARSHI	ARC	R MAURO	NCC 2 1089	423
69	UNIV OF VIRGINIA	M K KAISER	ARC	D R PROFFITT	NCC 2 1093	511
69	UNIV OF WASHINGTON	R A HOFFMAN	GSFC	G K PARKS	NAG 5 3170	518
69	UNIV OF WEST FLORIDA	D C FOYLE	ARC	D L STILL	NAG 2 1225	181
69	UNIV OF WISCONSIN - MADISON	E M WENZEL	ARC	F L WIGHTMAN	NCC 2 542	536
69	VA POLYTECH INST & ST UNIV	A T POPE	LARC	J L BURT	NGT 1 52107	515
69	WRIGHT STATE UNIV	A NURRIDIN	HQ	R H GILKEY	NGT 5 50213	417
73	SOUTHWEST TEXAS STATE UNIV	W A LARSEN	JSC	K MARGERISON	NCC 9 54	466
79	ALBANY STATE UNIV	R J MCKINNEY	KSC	D HODGES-TILLER	NAG10 265	181
79	BETHUNE - COOKMAN COLLEGE	W B WILLIAMS	KSC	A D TAYLOR	NAG10 269	183
79	FLA INTERNATIONAL UNIV	R MCKINNEY	KSC	C MENDEZ	NAG10 254	184
79	FLORIDA A&M UNIV	R J MCKINNEY	KSC	S C MOBLEY	NAG10 267	186
79	GEORGE MASON UNIV	S M CASNER	ARC	B HAACK	NAG 5 4140	495
79	HAMPTON UNIV	R A HATHAWAY	LARC	R SCHWAN	NAG 1 2331	497
79	MIAMI-DADE COMM COLLEGE	D CULBERTSON	KSC	E J PADRON	NAG10 282	171
79	MOREHOUSE COLLEGE	W LOVE	MSFC	B EVANS	NGT 8 52872	189
79	SAVANNAH STATE UNIV	R J MCKINNEY	KSC	D SAJWAN	NAG10 266	190
79	SOUTHWESTERN INDIAN POLYTECH INST	L M ARMENDARIZ	JSC	J A JOHNSON	NAG 9 937	356
79	SPELMAN COLLEGE	W LOVE	MSFC	C GILLYARD	NGT 8 52873	191
79	TUSKEGEE UNIV	R J MCKINNEY	KSC	D K BLACKWELL	NAG10 270	5
79	UNIV OF MICHIGAN - ANN ARBOR	J F DOWDY	MSFC	H T WRIGHT	NGT 8 52864	314
79	UTAH STATE UNIV	R MCKELLIP	SSC	D BAKER	NCC13 18	491
99	ALABAMA A&M UNIV	C PERSON	GSFC	A MANU	NAG 5 9885	1
99	ALABAMA A&M UNIV	S MILLER	MSFC	D CRAWFORD	NAG 8 1192	1
99	ALBANY STATE UNIV	E JOHNSON	KSC	G L BLACK	NAG10 233	181
99	ALCORN STATE UNIV	N SULLIVAN	JSC	D ADDIE	NAG13 98010	321
99	ARIZONA STATE UNIV	A NURRIDIN	HQ	R GREELEY	NGT 5 50077	25
99	ARIZONA STATE UNIV	J BOYCE	GSFC	D GREELEY	NAG 5 4533	22
99	ARIZONA STATE UNIV	L SMITH	GSFC	T SHARP	NGT 5 50276	25
99	ARIZONA STATE UNIV	M MEYER	GSFC	P KNAUTH	NAG 5 9430	24
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99	ARKANSAS TECH UNIV	J F DOWDY	MSFC	M CONNOR	NAG 8 1284	41
99	AUBURN UNIV	J E DUDENHOEFER	GRC	D W BRANDHORST	NCC 3 511	3
99	AUBURN UNIV	J HOWELL	MSFC	H BRANDHORST	NAG 8 1617	3
99	BAY MILLS COMM COLLEGE	M COMBERIETE	GSFC	R DICKINSON	NAG 5 8799	302
99	BAYLOR COLLEGE OF MED	C LLOYD	JSC	B A BRODY	NAG 9 1153	461
99	BETHUNE - COOKMAN COLLEGE	G BUCKINGHAM	KSC	A D TAYLOR	NAG10 220	183
99	BOSTON UNIV	J SHARBER	GSFC	G ERICKSON	NAG 5 9110	275
99	BOSTON UNIV	L SMITH	GSFC	L ODDSSON	NGT 5 50309	276
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99	BOSTON UNIV	M MELLOTT	GSFC	M OPPENHEIM	NAG 5 9444	275
99	BOWIE STATE UNIV	C PERSON	GSFC	T MCFADDEN	NAG 5 9843	239
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99	BOWIE STATE UNIV	D MENCHAN	GSFC	D W CRIM	NAG 5 8370	239
99	BOWIE STATE UNIV	L RANDOLPH	GSFC	N WAKIM	NCC 5 232	239
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99	BOWLING GREEN STATE UNIV	V L KLOERIS	JSC	D L HENTGES	NAG 9 1186	397
99	BRANDEIS UNIV	A NURRIDIN	HQ	J F WARDLE	NGT 5 50136	276
99	BROWN UNIV	D E SMITH	GSFC	J W HEAD	NAG 5 6144	445
99	BROWN UNIV	H CARR	SSC	J F MUSTARD	NCC13 98005	446
99	BROWN UNIV	L KEFFER	GSFC	P H SCHULTZ	NGT 5 90014	447
99	BROWN UNIV	M NOLAN	GSFC	D PIETERS	NAG 5 7998	445
99	CALIFORNIA INST OF TECH	A NURRIDIN	HQ	B SOIFER	NGT 5 50045	50
99	CALIFORNIA INST OF TECH	B BETTS	GSFC	J L KIRSCHVINK	NAG 5 9687	49
99	CALIFORNIA INST OF TECH	C LEVIT	ARC	W A GODDARD	NAG 2 1131	43
99	CALIFORNIA INST OF TECH	D E SMITH	GSFC	D O MUHLEMAN	NAG 5 4437	45
99	CALIFORNIA INST OF TECH	G ASRAR	GSFC	Y L YUNG	NGT 5 30096	50
99	CALIFORNIA INST OF TECH	G STRINGFELLOW	GSFC	J ZMUIDZINAS	NAG 5 9493	48
99	CALIFORNIA INST OF TECH	J BOYCE	GSFC	S DJORGOVSKI	NAG 5 9603	49
99	CALIFORNIA INST OF TECH	J BREDEKAMP	GSFC	S DJORGOVSKI	NAG 5 9482	48



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99	CALIFORNIA INST OF TECH	L K SMITH	GSFC	A LANGE	NGT 5 50278	51
99	CALIFORNIA INST OF TECH	L K SMITH	GSFC	F CULICK	NGT 5 50280	51
99	CALIFORNIA INST OF TECH	L SMITH	GSFC	A LANGE	NGT 5 50249	50
99	CALIFORNIA INST OF TECH	L SMITH	GSFC	G BLAKE	NGT 5 50231	50
99	CALIFORNIA INST OF TECH	L SMITH	GSFC	N YEH	NGT 5 50308	51
99	CALIFORNIA INST OF TECH	M WEI	GSFC	Y YUNG	NGT 5 30068	50
99	CALIFORNIA INST OF TECH	P DOTY	MSFC	D F BRADY	NAG 8 1237	49
99	CALIFORNIA INST OF TECH	S MCGEE	GSFC	A ALBEE	NGT 5 60003	51
99	CALIFORNIA STATE UNIV - CHICO	D CONRAD	GRC	J WRIGHT	NAS 3 26127	52
99	CALIFORNIA STATE UNIV - LONG BEACH	M MATTHEWS	GSFC	C SHUBIN	NCC 5 455	52
99	CALIFORNIA STATE UNIV - LOS ANGELES	B WHITE	GSFC	T ADENIKA-MORROW	NCC 5 439	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	D STOUTSENBERGER	GSFC	W TAYLOR	NAG 5 6195	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	J MALONE	GSFC	H R BOUSSALIS	NAG 5 6757	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	J MALONE	GSFC	H R BOUSSALIS	NAG 5 8889	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	M MATEU	GSFC	T ADENIKA-MORROW	NAG 5 3475	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	M MCCARTY	DFRC	T ADENIKA-MORROW	NAG 4 173	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	M STOUTSENBERGER	GSFC	M EPSTEIN	NAG 5 9180	53
99	CALIFORNIA STATE UNIV - LOS ANGELES	R A HATHAWAY	LARC	B LANDIS	NAG 1 1867	52
99	CALIFORNIA STATE UNIV - LOS ANGELES	C PERSON	GSFC	B BAVARIAN	NCC 5 513	54
99	CALIFORNIA STATE UNIV - NORTHBRIDGE	C PERSON	GSFC	S RENGARAJAN	NAG 5 9726	54
99	CALIFORNIA STATE UNIV - NORTHBRIDGE	M MATTHEWS	GSFC	C SHUBIN	NCC 5 489	54
99	CALIFORNIA STATE UNIV - NORTHBRIDGE	M MCCARTHY	DFRC	W FURUMOTO	NAG 4 162	54
99	CALIFORNIA STATE UNIV - NORTHBRIDGE	R K DISMUKES	ARC	B TABACHIVIDE	NCC 2 1021	54
99	CALIFORNIA STATE UNIV - SACRAMENTO	D SIX	MSFC	B HAUSBACK	NAG 8 1220	55
99	CALIFORNIA STATE UNIV	C HILL	JSC	C LEE	NAG13 99010	55
99	CALIFORNIA STATE UNIV	M MC CARTHY	DFRC	E KRINSKY	NAG 4 161	55
99	CAPITOL COLLEGE	D MENCHAN	GSFC	D JARRELL	NAG 5 9375	240
99	CARNEGIE - MELLON UNIV	J BREDEKAMP	GSFC	C GLYMOUR	NAG 5 9309	425
99	CARNEGIE - MELLON UNIV	L SMITH	GSFC	A W MOORE	NGT 5 50279	427
99	CARNEGIE - MELLON UNIV	L SMITH	GSFC	J L ANDERSON	NGT 5 50054	427
99	CARNEGIE - MELLON UNIV	R E GABRYS	GSFC	P COPPIN	NCC 5 431	426
99	CASE WESTERN RESERVE UNIV	L SMITH	GSFC	R QUINN	NGT 5 50274	401
99	CASE WESTERN RESERVE UNIV	M P WERNET	GRC	J R KADAMBI	NAG 3 2110	398
99	CAYUGA COUNTY COMM COLLEGE	D POWE	SSC	R FRESTOPKIK	NAG13 00043	359
99	CAYUGA COUNTY COMM COLLEGE	M MICK	SSC	R BROWER	NAG13 00044	359
99	CHICAGO STATE UNIV	C PERSON	GSFC	R SOLAKIEWICZ	NAG 5 9734	201
99	CHRISTOPHER NEWPORT UNIV	D BUSHNELL	LARC	L LAMBERT	NAG 1 2284	493
99	CHRISTOPHER NEWPORT UNIV	D GABRYS	GSFC	N B FREEMAN	NCC 5 435	493
99	CHRISTOPHER NEWPORT UNIV	D SIX	MSFC	D C ANYIWO	NAG 8 1292	493
99	CITY UNIV OF NY HERBERT H	M STOUSENBERGER	HQ	A L ROTHSTEIN	NAG 5 6085	359
99	CITY UNIV OF NY HERBERT H	R F LAWRENCE	GRC	A L ROTHSETIN	NAG 3 2268	359
99	CITY UNIV CLG OF NEW YORK YRK COLL	M STOUTSENBERGER	GSFC	J SCHEIN	NAG 5 7532	359
99	CITY UNIV CLG OF NEW YORK YRK COLL	R A HATHAWAY	LARC	J M SCHEIN	NAG 1 1913	359
99	CITY UNIV OF NY CITY COLLEGE	B WHITE	HQ	R KHANBILYARDI	NCC 5 344	361
99	CITY UNIV OF NY CITY COLLEGE	C PERSON	GSFC	F MOSHARY	NAG 5 9732	360
99	CITY UNIV OF NY CITY COLLEGE	J MALONE	GSFC	R R ALFANO	NAG 5 6952	360
99	CITY UNIV OF NY CITY COLLEGE	M MATEU	GSFC	J BARBA	NAG 5 4911	360
99	CITY UNIV OF NY CITY COLLEGE	R F LAWRENCE	GRC	L P JOHNSON	NAG 3 2258	360
99	CLARK ATLANTA UNIV	A C BEAM	MSFC	B E ALICK	NAG 8 1535	182
99	CLARK ATLANTA UNIV	B WHITE	HQ	D STEPHENSON-HAWK	NCC 5 347	182
99	CLARK UNIV	G ASRAR	GSFC	B TURNER	NGT 5 30129	277
99	CLARK UNIV	M Y WEI	GSFC	L LEWIS	NGT 5 30061	277
99	CLEMSON UNIV - CLEMSON	R CROUCH	GSFC	I D WALKER	NAG 5 8759	449
99	CLEVELAND STATE UNIV	D WHITE	GRC	D M KOCHER	NAG 3 2296	401
99	CLEVELAND STATE UNIV	M L BOROWSKI	GRC	P CHARITY	NAG 3 2075	401
99	CLEVELAND STATE UNIV	R C ALEXANDER	GRC	Z AUSTRIAN	NAG 3 2273	401
99	COASTAL CAROLINA UNIV	J F DOWDY	MSFC	C GILLMAN	NAG 8 1260	450
99	COLLEGE OF CHARLESTON	D DETROYE	GSFC	M COLGAN	NCC 5 413	451
99	COLLEGE OF CHARLESTON	L KEFFER	GSFC	M COLGAN	NGT 5 40050	451
99	COLLEGE OF CHARLESTON	L OSTENDORF	GSFC	M COLGAN	NGT 5 40052	451
99	COLLEGE OF SANTA FE	L ARMENDARIZ	JSC	B COLEMAN	NAG 9 1066	353
99	COLLEGE OF WILLIAM AND MARY	T E PINELLI	LARC	M HINDERS	NGT 1 52204	495
99	COLLEGE OF WILLIAM AND MARY	W P CHU	LARC	D C BENNER	NAS 1 98039	494
99	COLORADO SCH OF MINES	D MCKAY	JSC	M B DUKE	NAG 9 1207	123
99	COLORADO STATE UNIV	L SMITH	GSFC	J NELSON	NGT 5 50184	126
99	COLORADO STATE UNIV	M WEI	GSFC	A DENNING	NGT 5 30182	126

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99	COLORADO STATE UNIV	M WEI	GSFC	R PIELKE	NGT 5 30344	126
99	COLORADO STATE UNIV	M Y WEI	GSFC	S DENNING	NGT 5 30174	126
99	COLUMBIA UNIV	A NURRIDIN	HQ	C HAILEY	NGT 5 50158	368
99	COLUMBIA UNIV	A NURRIDIN	HQ	S KAHN	NGT 5 50152	368
99	COLUMBIA UNIV	B F CHAO	GSFC	X SONG	NAG 5 7673	364
99	COLUMBIA UNIV	E LINDSTROM	GSFC	X YUAN	NAG 5 8725	365
99	COLUMBIA UNIV	G ASRAR	GSFC	D SCHOSSER	NGT 5 30106	367
99	COLUMBIA UNIV	M WEI	GSFC	D PETEET	NGT 5 30226	368
99	COLUMBIA UNIV	M WEI	GSFC	M CANE	NGT 5 30123	368
99	CORNELL UNIV	D G SICKOREZ	JSC	R W LANGHANS	NGT 9 16	375
99	CORNELL UNIV	G ASRAR	GSFC	B ISACKS	NGT 5 30126	375
99	CORNELL UNIV	J GRANT	GSFC	W BOTTKKE	NAG 5 8950	372
99	CORNELL UNIV	L KEFFER	GSFC	Y TERZIAN	NGT 5 40019	375
99	CORNELL UNIV	L SMITH	GSFC	M SALTZMAN	NGT 5 50270	375
99	CORNELL UNIV	R CROUCH	GSFC	C MONTEEMAGNO	NAG 5 8775	372
99	CORNELL UNIV	R R HARMAN	GSFC	M PSIAKI	NAG 5 8076	372
99	CORNELL UNIV	R V MORRIS	JSC	R V MORRIS	NCC 9 89	374
99	CUYAHOGA COMM COLLEGE	R F LAWRENCE	GRC	S CHAND	NAG 3 2195	403
99	CUYAHOGA COMM COLLEGE	R L BONDURANT	GRC	L L DARLING	NAG 3 98099	404
99	CUYAHOGA COMM COLLEGE	R L BONDURANT	GRC	T MCMANAMON	NAG 3 2038	403
99	CUYAHOGA COMM COLLEGE	R LAWRENCE	GRC	S CHAND	NAG 3 2370	404
99	DARTMOUTH COLLEGE	A NURRIDIN	HQ	M HUDSON	NGT 5 50153	338
99	DINE COLLEGE	R TRAVIS	JSC	D ISELY	NAG13 99028	26
99	DRAKE UNIV	D SIX	MSFC	M D VALLE-BOHORQUEZ	NAG 8 1222	222
99	DUKE UNIV	G ASRAR	GSFC	D RICHTER	NGT 5 30117	388
99	DUKE UNIV	L SMITH	GSFC	G TRUSKEY	NGT 5 50266	388
99	DUKE UNIV	M GERNHARDT	JSC	R VANN	NCC 9 83	388
99	DUKE UNIV	M WEI	GSFC	D REYNOLDS	NGT 5 30105	388
99	EASTERN NEW MEXICO UNIV - MN CAMP	L ARMENDARIZ	JSC	J MILLER	NAG 9 972	353
99	EASTERN NEW MEXICO UNIV - MN CAMP	L ARMENDARIZ	JSC	J MILLER	NAG 9 1255	353
99	EASTERN WASHINGTON UNIV	D JAMES	ARC	R SOLTERO	NAG 2 6041	516
99	ELIZABETH CITY STATE UNIV	STOUTSENBERGER	GSFC	S SACHDEV	NAG 5 6814	388
99	FAYETTEVILLE STATE UNIV	M STOUTSENBERGER	GSFC	L EDWARDS	NAG 5 6095	389
99	FAYETTEVILLE STATE UNIV	M STOUTSENBERGER	GSFC	L EDWARDS	NAG 5 9155	389
99	FAYETTEVILLE STATE UNIV	S CANRIGHT	LARC	L EDWARD	NAG 1 1928	389
99	FISK UNIV	C HUA SU	MSFC	A BURGER	NCC 8 195	454
99	FLA INTERNATIONAL UNIV	B J COLLINS	ARC	Y DENG	NAG 2 1440	163
99	FLA INTERNATIONAL UNIV	D MENCHAN	GSFC	N RISHE	NAG 5 9478	164
99	FLA INTERNATIONAL UNIV	H T STEWART	ARC	I R FERNANDEZ	NAG 2 1384	163
99	FLA INTERNATIONAL UNIV	J MALONE	GSFC	N RISHE	NAG 5 8531	164
99	FLA INTERNATIONAL UNIV	M MATEU	GSFC	C BRAIN	NAG 5 6556	164
99	FLA INTERNATIONAL UNIV	R MC KINNEY	KSC	C MENDEZ	NAG10 251	164
99	FLORIDA A&M UNIV	B J COLLINS	ARC	M ENCINOSA	NAG 2 1439	165
99	FLORIDA A&M UNIV	E JOHNSON	KSC	B SAMUELS	NAG10 242	165
99	FLORIDA A&M UNIV	E JOHNSON	KSC	B SAMUELS	NAG10 262	166
99	FLORIDA A&M UNIV	J E BOYD	GRC	F S HUMPHRIES	NAG 3 1759	165
99	FLORIDA A&M UNIV	J L HARRINGTON, JR.	GSFC	D H AMMONS	NAG 5 7989	165
99	FLORIDA A&M UNIV	J MALONE	GSFC	J H AMMONS	NAG 5 9119	165
99	FLORIDA A&M UNIV	J MALONE	GSFC	J ZHENG	NAG 5 9420	165
99	FLORIDA ATLANTIC UNIV	T H MAIER	ARC	G H GEONKAR	NCC 2 5264	167
99	FLORIDA INST OF TECH	J MEDINA	KSC	R LANIER	NGT10 52621	167
99	FLORIDA INST OF TECH	L SMITH	GSFC	C HELMSTETTER	NGT 5 50257	167
99	FLORIDA INST OF TECH	L SMITH	GSFC	T OSWALT	NGT 5 50290	167
99	FLORIDA INST OF TECH	R WHEELER	KSC	M BUSH	NGT10 52622	168
99	FLORIDA STATE UNIV	B W MESSON	GSFC	J O	NAG 5 7648	169
99	FLORIDA STATE UNIV	G ASRAR	GSFC	E SMITH	NGT 5 30116	171
99	FOOTHILL-DE ANZA COM COL SYS OFF	M E LOPEZ	ARC	M CONWAY	NGT 2 1001	55
99	FRANKLIN-MARSHALL COLLEGE	L CAROFF	ARC	D BACKMAN	NCC 2 5365	428
99	FULTON-MONTGOMERY COMM COLLEGE	D L POWE	SSC	M PRESTOPNIK	NAG13 00007	375
99	FURMAN UNIV	R K DISMUKES	ARC	G O EINSTEIN	NCC 2 1085	451
99	GEORGE MASON UNIV	A E TAYLOR	GSFC	R R STOUGH	NCC 5 360	496
99	GEORGE MASON UNIV	M MAIDEN	GSFC	M KAFATOS	NCC 5 306	496
99	GEORGE MASON UNIV	M MELLOTT	GSFC	M E SUMMERS	NAG 5 9689	496
99	GEORGE WASHINGTON UNIV	D DETROYE	GSFC	J M LOGSDON	NGT 5 40058	156
99	GEORGE WASHINGTON UNIV	D JAN	NMO	J H MILLER	NAG 9 1185	154
99	GEORGE WASHINGTON UNIV	E T ENGMAN	GSFC	J S MERRICK	NAG 5 6415	154

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99	GEORGIA INST OF TECH	D DETROYE	GSFC	E ARMANIOS	NGT 5 40023	188
99	GEORGIA INST OF TECH	G ASRAR	GSFC	D WINE	NGT 5 30069	188
99	GEORGIA INST OF TECH	G L GILES	LARC	D P SCHRAGE	NGT 1 52156	187
99	GEORGIA INST OF TECH	J E GARDNER	LARC	B V GIBBENS	NGT 1 52162	187
99	GEORGIA INST OF TECH	J HOWELL	MSFC	J OLDS	NAG 8 1713	186
99	GEORGIA INST OF TECH	L SMITH	GSFC	R FUJIMOTO	NGT 5 50284	188
99	GEORGIA INST OF TECH	P BACON	HQ	K A CUNEFARE	NGT 1 52167	187
99	GEORGIA INST OF TECH	R BAUER	GRC	D HOWARD	NAS 3 27361	186
99	GEORGIA INST OF TECH	W W JOHNSON	ARC	A R PRITCHETT	NAG 2 1178	184
99	GLENDAL COMM COLLEGE	H KASS	GSFC	L SEROT	NAG 5 9700	55
99	HAMPTON UNIV	B WHITE	HQ	D A TEMPLE	NCC 5 348	499
99	HAMPTON UNIV	C S PERSON	GSFC	C L REAVES	NAG 5 10015	498
99	HAMPTON UNIV	M STOUTSENBERGER	GSFC	C RANKINS	NAG 5 9156	498
99	HAMPTON UNIV	M STOUTSENBERGER	GSFC	M MORGAN	NAG 5 6938	498
99	HAMPTON UNIV	N KHAZENIE	GSFC	D A TEMPLE	NAG 5 6296	498
99	HAMPTON UNIV	R A HATHAWAY	LARC	C LOWE	NAG 1 2159	497
99	HAMPTON UNIV	R A HATHAWAY	LARC	C LOWE	NCC 1 379	499
99	HAMPTON UNIV	R A HATHAWAY	LARC	P F MOLINA	NGT 1 52207	499
99	HAMPTON UNIV	R HATHAWAY	LARC	C LOWE	NAG 1 2207	497
99	HAMPTON UNIV	R HATHAWAY	LARC	D DEPRIEST	NCC 1 358	499
99	HAMPTON UNIV	R HATHAWAY	LARC	W P MARABLE	NGT 1 52181	499
99	HAMPTON UNIV	S E MASSENBERG	LARC	P F MOLIN	NAG 1 1185	496
99	HAMPTON UNIV	S MOSSENBERG	LARC	C REEVES	NAG 1 2256	497
99	HARVARD UNIV	A NURRIDIN	GSFC	J GRINDLEY	NGT 5 50020	282
99	HARVARD UNIV	A NURRIDIN	GSFC	L HERNQUIST	NGT 5 50028	282
99	HARVARD UNIV	L SMITH	GSFC	R KIRSHNER	NGT 5 50244	282
99	HARVARD UNIV	L SMITH	GSFC	W H PARKINSON	NGT 5 50258	282
99	HERITAGE COLLEGE	B J COLLINS	ARC	P T ALEXANDER	NAG 2 6034	516
99	HOUSTON COMM COLLEGE	M MATEU	GSFC	C GARCIA	NAG 5 8566	461
99	HOWARD UNIV	D MENCHAN	GSFC	D WOODARD	NAG 5 7384	157
99	HOWARD UNIV	D MENCHAN	GSFC	W WOODARD	NAG 5 9279	157
99	HOWARD UNIV	E T SCHWARTZ	HQ	J B HALPERN	NGT 40024	157
99	HOWARD UNIV	E T SCHWARTZ	HQ	J B HALPERN	NGT 5 37	158
99	HOWARD UNIV	G A SOFFEN	GSFC	A N THORPE	NCC 5 184	157
99	HOWARD UNIV	M S BURRELL	GSFC	J B HALPERN	NGT 5 77	158
99	HOWARD UNIV	N KHAZANIE	GSFC	V M MORRIS	NAG 5 9175	157
99	HUNTER COLL OF THE CITY UNIV OF NY	J F DOWDY	MSFC	L COHEN	NAG 8 1259	375
99	ILLINOIS STATE UNIV	J SHARBER	GSFC	D HOLLAND	NAG 5 9584	201
99	IMPERIAL COLLEGE OF SCIENCE & TECH	M E DUENAS	ARC	R P LINDSTEDT	NAG 2 1283	541
99	INTR AMERICN U OF PR AGUADILLA CMPS	M STOUTSENBERGER	HQ	R GONZALEZ	NAG 5 9311	375
99	IOWA STATE UNIV	D DETROYE	GSFC	W J BYRD	NGT 5 40027	224
99	IOWA STATE UNIV	G FOGELMAN	GSFC	M PORTER	NAG 5 8892	223
99	JACKSON STATE UNIV	A JOYCE	SSC	A K MOHAMED	NAG13 98007	321
99	JACKSON STATE UNIV	A JOYCE	SSC	H GORE	NAG13 99004	321
99	JACKSON STATE UNIV	A R JOYCE	SSC	C HARPER	NGT13 52713	322
99	JACKSON STATE UNIV	A T JOYCE	SSC	P B TCHOUNWOU	NAG13 49	321
99	JACKSON STATE UNIV	B WHITE	GSFC	R SULLIVAN	NGT 5 90067	322
99	JAMES MADISON UNIV	R A HATHAWAY	LARC	A A TEATE	NAG 1 2155	500
99	JARVIS CHRISTIAN COLLEGE	L ARMENDARIZ	JSC	M J MCKINNEY	NAG 9 1065	461
99	JOHN C	S PAYNE	MSFC	R CARPENTER	NCC 8 118	4
99	JOHNS HOPKINS UNIV	B CAMPBELL	GSFC	D GOLD	NAG 5 6488	243
99	JOHNS HOPKINS UNIV	B CAMPBELL	GSFC	D W MCENTIRE	NAG 5 4548	242
99	JOHNS HOPKINS UNIV	D GOLOMBEKS	GSFC	S KRIMIGIS	NAG 5 9367	248
99	JOHNS HOPKINS UNIV	D MENGERS	GSFC	E C ROELOF	NAG 5 7720	244
99	JOHNS HOPKINS UNIV	D R MENGERS	GSFC	D MOOS	NAG 5 3448	241
99	JOHNS HOPKINS UNIV	J SHARBER	GSFC	K TAKAHASHI	NAG 5 8964	247
99	JOHNS HOPKINS UNIV	L KEFFER	GSFC	R C HENRY	NGT 5 40029	250
99	JOHNS HOPKINS UNIV	L SMITH	GSFC	K J STEBE	NGT 5 50259	250
99	JOHNS HOPKINS UNIV	L SMITH	GSFC	K J STEBE	NGT 5 50268	250
99	JOHNS HOPKINS UNIV	M NOLAN	GSFC	J T MUELLER	NAG 5 7999	244
99	JOHNS HOPKINS UNIV	M NOLAN	GSFC	M R PETERSON	NAG 5 8001	244
99	LA GUARDIA COMMUNITY COLLEGE	R LAWRENCE	GSFC	R MCLEOD	NGT 5 90079	376
99	LOUISIANA STATE UNIV - BATON ROUGE	D DETROYE	HQ	J WEFEL	NCC 5 393	234
99	LOUISIANA STATE UNIV - BATON ROUGE	D DETROYE	GSFC	J P WEFEL	NCC 5 167	234
99	LOUISIANA STATE UNIV - BATON ROUGE	L KEFFER	GSFC	J P WEFEL	NGT 5 40035	234
99	MARIST COLLEGE	M MEYER	GSFC	R KEPNER	NAG 5 9689	376

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99	MARQUETTE UNIV	C W LLOYD	JSC	R H FITTS	NAG 9 1156	528
99	MASSACHUSETTS INST OF TECH	D E SMITH	GSFC	G H PETTENGILL	NAG 5 4434	286
99	MASSACHUSETTS INST OF TECH	D E SMITH	GSFC	T H JORDAN	NCC 5 212	295
99	MASSACHUSETTS INST OF TECH	D SMITH	GSFC	M ZUBER	NAG 5 4806	287
99	MASSACHUSETTS INST OF TECH	K OGILVIE	GSFC	A LARARUS	NAG 5 7359	289
99	MASSACHUSETTS INST OF TECH	L KEFFER	GSFC	L R YOUNG	NGT 5 40048	296
99	MASSACHUSETTS INST OF TECH	L SMITH	GSFC	J B HOWARD	NGT 5 50302	297
99	MASSACHUSETTS INST OF TECH	L SMITH	GSFC	M FLEMINGS	NGT 5 50306	297
99	MASSACHUSETTS INST OF TECH	M C WALLER	LARC	J K KUCHAR	NAG 1 1974	282
99	MASSACHUSETTS INST OF TECH	M MEYER	GSFC	J GROTZINGER	NAG 5 9445	292
99	MASSACHUSETTS INST OF TECH	R CROUCH	GSFC	G MCKINLEY	NAG 5 8776	291
99	MEDGAR EVERS COLLEGE	M STOUTSENBERGER	HQ	L JOHNSON	NAG 5 9256	376
99	MERCER UNIV CENTRAL OFFICE	D G SICKOREZ	JSC	B W TOBIN	NAG 9 1071	189
99	MIAMI UNIV	A NURRIDIN	GSFC	J Z KISS	NGT 5 50041	404
99	MICHIGAN STATE UNIV	A NURRIDIN	HQ	P WEBBER	NGT 5 50150	304
99	MICHIGAN STATE UNIV	B W MESSON	GSFC	N WALKER	NAG 5 7650	303
99	MICHIGAN STATE UNIV	D S MCKAY	JSC	M A VELBEL	NAG 9 1211	304
99	MICHIGAN STATE UNIV	M MAIDEN	GSFC	D SKOLE	NCC 5 303	304
99	MICHIGAN STATE UNIV	S OLSON	GRC	I S WICHMAN	NCC 3 662	304
99	MISSISSIPPI STATE UNIV	D POWE	SSC	M DINGERSON	NAS13 564	323
99	MISSISSIPPI STATE UNIV	H CARR	SSC	D SHAW	NCC13 99001	323
99	MISSISSIPPI VALLEY STATE UNIV	C PERSON	GSFC	C BLAND	NAG 5 9535	323
99	MISSISSIPPI VALLEY STATE UNIV	M STOUTSENBERGER	GSFC	C BLAND	NAG 5 9197	323
99	MISSISSIPPI VALLEY STATE UNIV	N S SULLIVAN	SSC	S J WHITE	NAG13 99003	324
99	MISSISSIPPI VALLEY STATE UNIV	N SULLIVAN	JSC	S J WHITE	NAG13 51	323
99	MONTANA STATE UNIV	D DETROYE	GSFC	W A HISCOCK	NGT 5 40036	332
99	MONTANA STATE UNIV	D DETROYE	GSFC	W HISCOCK	NCC 5 410	332
99	MONTANA STATE UNIV	D JAN	JPL	B H PYLE	NAG 9 1082	331
99	MONTANA STATE UNIV	L SMITH	GSFC	J C PRISCU	NGT 5 50297	332
99	MONTANA STATE UNIV	L SMITH	GSFC	J PRISCU	NGT 5 50235	332
99	MONTANA STATE UNIV	M V PHELPS	GSFC	G TUTHILL	NAG 5 4576	331
99	MOREHOUSE SCH MED	B J COLLINS	ARC	M THIERRY-PALMER	NAG 2 1381	190
99	MORGAN STATE UNIV	B G BILLS	GSFC	D C HELM	NCC 5 199	251
99	MORGAN STATE UNIV	C PERSON	GSFC	D N WILLIAMS	NAG 5 9710	251
99	MORGAN STATE UNIV	D MENCHAN	GSFC	H WILLIAMS	NAG 5 8860	251
99	MORGAN STATE UNIV	K KRISHEN	JSC	J E WHITNEY	NAG 9 998	251
99	MORGAN STATE UNIV	P HOLLOWAY	GSFC	H WILLIAMS	NAG 5 8574	250
99	MT SINAI SCH OF MED OF THE CUNY	A M LEE	JSC	D COHEN	NAS 9 19441	376
99	NATIONAL HISPANIC UNIV	G S LEE	ARC	R D PARKER	NAG 2 6016	55
99	NEW JERSEY INST OF TECH	F SIX	MSFC	S BAOHERI	NAG 8 1114	344
99	NEW JERSEY INST OF TECH	P DOTY	MSFC	E DREIZIN	NAG 8 1714	344
99	NEW MEXICO HIGHLANDS UNIV	G HENDERSEN	JSC	J R JUAREZ	NAG 9 1280	354
99	NEW MEXICO HIGHLANDS UNIV	J MALONE	GSFC	R CLARK	NAG 5 6532	353
99	NEW MEXICO HIGHLANDS UNIV	L ARMENDARIZ	JSC	J JUAREZ	NAG 9 1195	353
99	NEW MEXICO HIGHLANDS UNIV	L ARMENDARIZ	JSC	J R JUAREZ	NAG 9 1921	354
99	NEW MEXICO HIGHLANDS UNIV	P SAKIMOTO	GSFC	J C	NGT 5 90069	354
99	NEW MEXICO STATE UNIV - LAS CRUCES	A NURRIDIN	GSFC	S CASTILLO	NGT 5 50117	356
99	NEW MEXICO STATE UNIV - LAS CRUCES	B J COLLINS	ARC	G V GARCIA	NAG 2 6030	354
99	NEW MEXICO STATE UNIV - LAS CRUCES	B WHITE	GSFC	H BAPTISTE	NCC 5 466	356
99	NEW MEXICO STATE UNIV - LAS CRUCES	D BOGAN	GSFC	M MARLEY	NAG 5 8919	355
99	NEW MEXICO STATE UNIV - LAS CRUCES	J DASCH	HQ	P HYNES	NGT 5 40061	356
99	NEW MEXICO STATE UNIV - LAS CRUCES	R K DISMUKES	ARC	G E YOUNG	NCC 2 1002	356
99	NORFOLK STATE UNIV	B L WHITE	GSFC	G GOLEMBIEWSKI	NAG 5 9257	501
99	NORFOLK STATE UNIV	C PERSON	GSFC	L MATTIX	NCC 5 514	501
99	NORFOLK STATE UNIV	M CANRIGHT	LARC	M NEWSOME	NAG 1 1937	500
99	NORFOLK STATE UNIV	M D CANRIGHT	LARC	C COLEMAN	NAG 1 2098	500
99	NORFOLK STATE UNIV	M MATTHEWS	GSFC	L MATTIX	NCC 5 457	501
99	NORFOLK STATE UNIV	N KHAZENIE	GSFC	S CHAUDHURY	NAG 5 8541	501
99	NORFOLK STATE UNIV	R A HATHAWAY	LARC	P TUCKER-HOGAN	NCC 1 391	501
99	NORFOLK STATE UNIV	R A HATHAWAY	LARC	R TUCKER-HOGAN	NCC 1 338	501
99	NORFOLK STATE UNIV	R HATHAWAY	LARC	D JONES	NAG 1 1967	500
99	NORFOLK STATE UNIV	R HATHAWAY	LARC	E P WITTY	NAG 1 2086	500
99	NORFOLK STATE UNIV	R HATHAWAY	LARC	E WITTY	NCC 1 295	501
99	NORFOLK STATE UNIV	S CANRIGHT	LARC	C COLEMAN	NAG 1 1948	500
99	NORTH CAROLINA A&T STATE UNIV	B WHITE	GSFC	A D KELKAR	NCC 5 349	391
99	NORTH CAROLINA A&T STATE UNIV	C WILKERSON	MSFC	D J SCHULZ	NAG 8 1247	391

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99	NORTH CAROLINA A&T STATE UNIV	D F NOGA	GRC	Y ELLEN	NAG 3 2185	390
99	NORTH CAROLINA A&T STATE UNIV	J D ERICK SUN	JSC	B RAM	NAG 9 973	391
99	NORTH CAROLINA A&T STATE UNIV	J MALONE	GSFC	N DOGAN	NAG 5 9419	390
99	NORTH CAROLINA A&T STATE UNIV	R K DISMAKES	ARC	C A NTUEN	NCC 2 987	391
99	NORTH CAROLINA A&T STATE UNIV	S E MASSENBERG	LARC	L SHARPE	NAG 1 956	389
99	NORTH CAROLINA STATE UNIV	A GHASSEM	GSFC	D REICHLE	NGT 5 30054	394
99	NORTH CAROLINA STATE UNIV	C	ARC	D W BRENNER	NAG 2 1119	392
99	NORTH CAROLINA STATE UNIV	C LEVIT	ARC	B I YAKOBSON	NAG 2 1115	392
99	NORTH CAROLINA STATE UNIV	D DETROYE	GSFC	F R DEJARNETTE	NGT 5 40011	394
99	NORTH CAROLINA STATE UNIV	J A WHITE	LARC	J R EDWARDS	NAG 1 2216	392
99	NORTH CAROLINA STATE UNIV	J BREDEKAMP	GSFC	K J BORKOWSKI	NAG 5 9490	393
99	NORTH CAROLINA STATE UNIV	S SPEARMAN	MSFC	K J BACHMANN	NCC 8 95	393
99	NORTHERN ARIZONA UNIV	D BOGAN	GSFC	R YELLE	NAG 5 9214	26
99	NORTHERN ARIZONA UNIV	P SAKIMOTO	GSFC	G M BOYNE	NGT 5 90080	27
99	NORTHWEST INDIAN COLLEGE	M JASINSKI	GSFC	G BLEDSOE	NCC 5 423	517
99	NORTHWEST INDIAN COLLEGE	STOUTSENBERGER	GSFC	K YAMAMOTO	NAG 5 6445	517
99	NORTHWESTERN UNIV	D L JAN	JPL	D A STAHL	NAG 9 1079	203
99	NORTHWESTERN UNIV	L SMITH	GSFC	B J MATKOWSKY	NGT 5 50283	204
99	NORTHWESTERN UNIV	L SMITH	GSFC	P W VORHEES	NGT 5 50261	204
99	NORTHWESTERN UNIV	T GATES	LARC	L C BRINSON	NCC 1 271	203
99	OAKWOOD COLLEGE	G HAMILTON	MSFC	K BENN-MARSHALL	NAG 8 1600	4
99	OGLALA LAKOTA COLLEGE	T GULL	GSFC	J HAAS	NAG 5 7548	452
99	OHIO NORTHERN UNIV	D G SICKOREZ	JSC	C A SHEARROW	NAG 9 1074	404
99	OHIO STATE UNIV	A NURRIDDIN	HQ	M EVANS	NGT 5 50015	409
99	OKLAHOMA STATE UNIV	D E WICKLAND	GSFC	B J STOECKER	NAG 9 1159	418
99	OKLAHOMA STATE UNIV	L BILBROUGH	HQ	K WIGGINS	NASW 5043	418
99	OKLAHOMA STATE UNIV	P L MOUNTJOY	GSFC	K E WIGGINS	NCC 5 185	418
99	OLD DOMINION UNIV	L KEFFER	GSFC	M L SANDY	NGT 5 40059	505
99	OLD DOMINION UNIV	R A HATHAWAY	LARC	S N TUVORE	NGT 1 52208	504
99	ORAL ROBERTS UNIV	R HARMAN	GSFC	D HALSMER	NAG 5 7378	418
99	OREGON HEALTH SCIENCES UNIV	V SCHNEIDER	GSFC	R PETERKA	NAG 5 7889	419
99	OREGON STATE UNIV	G ASRAR	GSFC	M ABBOTT	NGT 5 30084	422
99	OREGON STATE UNIV	L CHAMBERS	GSFC	C SNOW	NGT 5 50080	423
99	OREGON STATE UNIV	L KEFFER	GSFC	A C KLEIN	NGT 5 40022	423
99	OREGON STATE UNIV	M MEYER	GSFC	M FISK	NAG 5 9446	421
99	OREGON STATE UNIV	M WEI	GSFC	W PEGAU	NGT 5 30347	422
99	OREGON STATE UNIV	M Y WEI	GSFC	B BOND	NGT 5 30181	422
99	OREGON STATE UNIV	N SOVIK	SSC	D KIMERLING	NCC13 98004	422
99	OREGON STATE UNIV	R K DISMUKES	ARC	K H FUNK	NAG 2 1287	419
99	OUR LADY OF THE LAKE UNIV	L ARMENDARIZ	JSC	J KUEKER	NAG 9 976	462
99	OUR LADY OF THE LAKE UNIV	L ARMENDARIZ	JSC	K A WARD	NAG 9 1170	462
99	PAINE COLLEGE	M STOUTSENBERGER	GSFC	R KESSLER	NAG 5 9157	190
99	PASADENA CITY COLLEGE	M STOUTSENBERGER	GSFC	J CONNOR	NAG 5 6379	55
99	PASSAIC COUNTY COMM COLLEGE	STOUTSENBERGER	HQ	R EPSTEIN	NAG 5 9103	344
99	PENN STATE UNIV -HERSHEY MED	C W LLOYD	JSC	D MACLEAN	NAG 9 1259	429
99	PENN STATE UNIV -HERSHEY MED	L SMITH	GSFC	C CHENG	NGT 5 50264	429
99	PENN STATE UNIV	A NURRIDDIN	GSFC	D BURROWS	NGT 5 50049	439
99	PENN STATE UNIV	A NURRIDDIN	HQ	C CROYSKEY	NGT 5 50112	439
99	PENN STATE UNIV	A NURRIDDIN	HQ	S MCCLINTOCK	NGT 5 50147	439
99	PENN STATE UNIV	J DASCH	HQ	R DEVON	NGT 5 40084	439
99	PENN STATE UNIV	JF DOWDY	MSFC	G SUBRAMANIAM	NAG 8 1286	436
99	PENN STATE UNIV	L K SMITH	GSFC	W BRANDT	NGT 5 50277	439
99	PENN STATE UNIV	L SMITH	GSFC	M BERSHADY	NGT 5 50236	439
99	PENN STATE UNIV	L SMITH	GSFC	N BRANDT	NGT 5 50247	439
99	PENN STATE UNIV	L SMITH	GSFC	P N WALKER	NGT 5 50272	439
99	PENN STATE UNIV	L SMITH	GSFC	S COUTU	NGT 5 50296	439
99	PENN STATE UNIV	L SMITH	HQ	S BRANTLEY	NGT 5 50178	439
99	PENN STATE UNIV	M MC CARTHY	DFRC	B GRABOWSKI	NAG 4 180	431
99	PENN STATE UNIV	M WEI	GSFC	A BARROS	NGT 5 30080	439
99	PENN STATE UNIV	P CRANE	GSFC	R A WADE	NAG 5 9586	435
99	PENN STATE UNIV	R E GABRYS	GSFC	D L GRABOWSKI	NCC 5 432	438
99	PERALTA COMM COLLEGE SYSTEM OFFICE	B J COLLINS	ARC	R J PARKER	NAG 2 6031	55
99	PORTLAND STATE UNIV	M MEYER	GSFC	S CADY	NAG 5 9579	423
99	PORTLAND STATE UNIV	Y F SIAMAK	ARC	D M RAFFO	NCC 2 1152	423
99	PRAIRIE VIEW A&M UNIV	A JOYCE	SSC	S SHAKIR	NAG13 46	462
99	PRINCETON UNIV	M WEI	GSFC	S HUBBELL	NGT 5 30113	348

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99	PURDUE UNIV	A NURRIDDIN	HQ	J LONGUSKI	NGT 5 50110	220
99	PURDUE UNIV	D FOLTA	GSFC	K C HOWELL	NCC 5 358	219
99	PURDUE UNIV	L KEFFER	GSFC	D ANDRISANI	NGT 5 40043	220
99	PURDUE UNIV	L SMITH	GSFC	J M LONGUSKI	NGT 5 50275	220
99	RENSSELAER POLYTECH INST	D MONTEGANI	GRC	J A TICHY	NGT 3 52341	379
99	RENSSELAER POLYTECH INST	G A ROBERSTON	MSFC	L N MYRABO	NAG 8 1290	378
99	RENSSELAER POLYTECH INST	L SMITH	GSFC	B SZMANSKI	NGT 5 50185	379
99	RENSSELAER POLYTECH INST	M MEYER	GSFC	J P FERRIS	NAG 5 9607	378
99	RENSSELAER POLYTECH INST	S MERRITT	GRC	M D SMITH	NAG 3 1896	377
99	RICE UNIV	A TUYAHOV	GSFC	P REIFF	NCC 5 311	465
99	RICE UNIV	C L FARMER	JSC	D SUBRAMANIAN	NAG 9 1249	465
99	RICE UNIV	C LEVIT	ARC	G E SCUSERIA	NAG 2 1112	463
99	RICE UNIV	J L CREWS	JSC	Y C ANGEL	NAG 9 929	465
99	RICE UNIV	J SHARBER	GSFC	R WOLF	NAG 5 9077	464
99	ROANOKE COLLEGE	D SIX	MSFC	A F BARGHOUTY	NAG 8 1208	505
99	ROCHESTER INST OF TECH	B CAMPBELL	GSFC	D NINKOV	NAG 5 6486	379
99	ROCHESTER INST OF TECH	D G SICKOREZ	JSC	C T WALLINGTON	NAG 9 1072	379
99	RUTGERS STATE UNIV - PISCATAWAY	G ASRAR	GSFC	D ROBINSON	NGT 5 30062	351
99	RUTGERS STATE UNIV - PISCATAWAY	G ASRAR	GSFC	R G LATHROP	NGT 5 30100	351
99	RUTGERS STATE UNIV OF NJ NEW BRUNS	B W MEESON	GSFC	W CRANS	NAG 5 7666	352
99	SAINT LOUIS UNIV	A NURRIDDIN	GSFC	N PARTRIDGE	NGT 5 50047	325
99	SALISH KOOTENAI COLLEGE	M STOUTSENBERGER	GSFC	J M GOBERT	NAG 5 9147	332
99	SAN ANTONIO COLLEGE	L ARMENDARIZ	JSC	C GONZALES	NAG 9 975	466
99	SAN DIEGO STATE UNIV	G ASRAR	GSFC	D ALLEN	NGT 5 30077	56
99	SAN DIEGO STATE UNIV	G ASRAR	GSFC	W C OECHEL	NGT 5 30118	56
99	SAN DIEGO STATE UNIV	N SOVIK	SSC	D STOW	NCC13 00002	56
99	SAN JACINTO COLLEGE	D DENTON-MISFELDT	JSC	N J ANTHA	NAS 9 00106	466
99	SAN JOSE STATE UNIV	A NURRIDDIN	HQ	S WHITE	NGT 5 50115	60
99	SAN JOSE STATE UNIV	J BOYCE	GSFC	S C RAFKIN	NAG 5 9500	57
99	SAN JOSE STATE UNIV	M F VASQUES	ARC	D C HOLLEY	NCC 2 1136	59
99	SAN JOSE STATE UNIV	M MOORE	ARC	B STONE	NGT 2 52262	60
99	SAN JOSE STATE UNIV	R K DISMUKES	ARC	K P JORDAN	NCC 2 1095	58
99	SAN JOSE STATE UNIV	RJ DISMUKES	ARC	K JORDON	NCC 2 1155	59
99	SHAW UNIV	M STOUTSENBERGER	GSFC	K SATAGOPAN	NAG 5 9195	394
99	SONOMA STATE UNIV	D GABRYS	GSFC	L COMINSKY	NCC 5 429	61
99	SOUTH CAROLINA STATE UNIV	B GUYNES	MSFC	J D SALLEY	NAG 5 8246	451
99	SOUTH CAROLINA STATE UNIV	M MATTHEWS	GSFC	D K WALTER	NCC 5 454	451
99	SOUTH DAKOTA SCH OF MINES & TECH	D DETROYE	GSFC	S FARWELL	NCC 5 402	453
99	SOUTH DAKOTA SCH OF MINES & TECH	L KEFFER	GSFC	S O FARWELL	NGT 5 40042	453
99	SOUTHERN UNIV & A&M COLLEGE	A JOYCE	SSC	E HILDRETH	NGT13 52720	236
99	SOUTHERN UNIV & A&M COLLEGE	B WHITE	GSFC	D BAGAYOKO	NAG 5 8552	235
99	SOUTHERN UNIV & A&M COLLEGE	D FORD	MSFC	C WANG	NCC 8 138	236
99	SOUTHERN UNIV & A&M COLLEGE	G GORDON	MSFC	M A STUNNLEFIELD	NAG 8 1536	235
99	SOUTHERN UNIV & A&M COLLEGE	R TRAVIS	SSC	D BAGAYOKO	NCC13 00010	236
99	SOUTHERN UNIV & A&M COLLEGE	W J LOVE	MSFC	L L LAURENCE	NAG 8 1627	235
99	SOUTHWEST TEXAS JUNIOR COLLEGE	L ARMENDARIZ	JSC	A HERNANDEZ	NAG 9 1019	466
99	SPELMAN COLLEGE	C PERSON	GSFC	S T BOZEMAN	NAG 5 9313	191
99	SPELMAN COLLEGE	W J LOVE	MSFC	E Z FALCONER	NCC 8 179	191
99	STANFORD UNIV	A NURRIDDIN	GSFC	R WAGONER	NGT 5 50044	69
99	STANFORD UNIV	A NURRIDDIN	HQ	J HOW	NGT 5 50075	69
99	STANFORD UNIV	B BETTS	GSFC	L TYLER	NAG 5 9494	65
99	STANFORD UNIV	D BOGAN	GSFC	G TYLER	NAG 5 9556	65
99	STANFORD UNIV	G ASRAR	GSFC	D VITOUSE	NGT 5 30130	69
99	STANFORD UNIV	L SMITH	GSFC	A B WALKER	NGT 5 50254	70
99	STANFORD UNIV	M M MOORE	ARC	G S SPRINGER	NGT 2 52212	69
99	STANFORD UNIV	M WEI	GSFC	C FIELD	NGT 5 50101	69
99	STANFORD UNIV	T J BARTH	ARC	T HUGHES	NCC 2 5363	68
99	STATE UNIV OF NY - ALBANY	G ASRAR	GSFC	D R FITZJARRALD	NGT 5 30081	380
99	STATE UNIV OF NY - STONY BROOK	M Y WEI	GSFC	M LERDAU	NGT 5 30124	384
99	STEVENS INST OF TECH	L KEFFER	GSFC	S THANGAM	NGT 5 40041	352
99	STILLMAN COLLEGE	M STOUTSENBERGHER	GSFC	J CHRISTIAN	NAG 5 4588	4
99	TENNESSEE STATE UNIV	M CAWTHON	GRC	D B ROGERS	NAG 3 2441	455
99	TENNESSEE STATE UNIV	M MATHEWS	GSFC	M BUSBY	NCC 5 511	455
99	TENNESSEE STATE UNIV	P SAKIMOTO	GSFC	M BUSBY	NCC 5 228	455
99	TENNESSEE STATE UNIV	R F LAWRENCE	GRC	D B ROGERS	NAG 3 2266	455
99	TENNESSEE STATE UNIV	R F LAWRENCE	GRC	D B ROGERS	NAG 3 2272	455

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99	TENNESSEE TECHNOLOGICAL UNIV	J P DOWDY	MSFC	J C CHAI	NAG 8 1279	455
99	TEXAS A&M UNIV	C PERSON	GSFC	C STEIDLEY	NCC 5 517	470
99	TEXAS A&M UNIV	D BARTA	JSC	M C DREW	NAG 9 1067	469
99	TEXAS A&M UNIV	D SICKOREZ	JSC	W A HYMAN	NGT 9 39	470
99	TEXAS A&M UNIV	J E CALOGERAS	GRC	F R BEST	NCC 3 516	470
99	TEXAS A&M UNIV	J HOWELL	MSFC	K CHANG	NAG 8 1618	468
99	TEXAS A&M UNIV	M MEYER	GSFC	M C KENNICUT	NAG 5 9485	468
99	TEXAS A&M UNIV	P MOUNTJPOY	HQ	S BEDNARZ	NCC 5 359	470
99	TEXAS A&M UNIV-CORPUS CHRISTI	N KHAZENIE	GSFC	G BLOUNT	NAG 5 9196	471
99	TEXAS COLLEGE	C PERSON	GSFC	T NAMBOODIRI	NAG 5 8934	471
99	TEXAS TECH UNIV	A NURRIDIN	HQ	S B YADAV	NGT 5 50151	472
99	TEXAS TECH UNIV	J BREDEKAMP	GSFC	D COOKE	NAG 5 9505	472
99	THE AMERICAN UNIV	D DETROYE	GSFC	R B EREBDZEN	NGT 5 40068	158
99	THE CATHOLIC UNIV OF AMERICA	L PURVES	GSFC	D NGUYEN	NAG 5 8357	160
99	THE CATHOLIC UNIV OF AMERICA	R CROUCH	GSFC	R D PARASURAMAN	NAG 5 8761	160
99	THE CATHOLIC UNIV OF AMERICA	Y KONDO	GSFC	F C BRUHWEILER	NAG 5 3037	158
99	THE SCRIPPS REASERCH INST	M MEYER	HQ	G JOYCE	NAG 5 9386	70
99	THE UNIV OF CENTRAL FLORIDA	D DETROYE	GSFC	S DURRANCE	NGT 5 40069	173
99	THE UNIV OF CENTRAL FLORIDA	J P GORDON	KSC	D HOSIER	NAG10 280	172
99	TRENHOLM STATE TECH COLLEGE	L RANDOLPH	GSFC	E ROSS	NAG 5 4578	4
99	TUFTS UNIV	A NURRIDIN	GSFC	C B ROGERS	NGT 5 50050	298
99	TUFTS UNIV	J M SEATON	LARC	C B ROGERS	NAG 1 2049	297
99	TUFTS UNIV	R E GABRYS	GSFC	C ROGERS	NCC 5 434	298
99	TUFTS UNIV	W J WAGNER	GSFC	K R LANG	NAG 5 9725	297
99	TURTLE MOUNTAIN COMM COLLEGE	P SAKIMOTO	GSFC	S KARNAWAT	NAG 5 6088	396
99	TUSKEGEE UNIV	B ST. CYR	SSC	E SHEPPARD	NAG13 50	6
99	TUSKEGEE UNIV	B WHITE	HQ	N O EGIEBOR	NCC 5 346	6
99	TUSKEGEE UNIV	R MCKINNEY	KSC	C DAVIS	NAG10 256	5
99	UNIV HOUSTON-HOUSTON	F J MONTEGANI	GRC	V BALAKOTAIAH	NGT 3 52356	473
99	UNIV HOUSTON-HOUSTON	H L DAVIS	JSC	A V VAILLAS	NCC 9 70	473
99	UNIV HOUSTON-HOUSTON	L ARMENDARIZ	JSC	T MINDIOLA	NAG 9 1055	473
99	UNIV OF MINN	A NURRIDIN	HQ	HALLEY	NGT 5 50091	320
99	UNIV OF MINN	A TUYAHOV	GSFC	T BURK	NCC 5 316	320
99	UNIV OF MINN	G ASRAR	GSFC	G POURFOULA	NGT 5 50104	320
99	UNIV OF MINN	G ASRAR	GSFC	M DAVIS	NGT 5 30115	320
99	UNIV OF MINN	G ASRAR	GSFC	M PERSON	NGT 5 30080	320
99	UNIV OF MINN	J SHARBER	GSFC	J WYGANT	NGT 5 50312	321
99	UNIV OF MINN	K OGILVIE	GSFC	P KELLOG	NAG 5 7202	317
99	UNIV OF MINN	L KEFFER	GSFC	W L GARRARD	NGT 5 40040	320
99	UNIV OF MINN	L SMITH	GSFC	C CATTELL	NGT 5 50251	320
99	UNIV OF MINN	L SMITH	GSFC	J DICKEY	NGT 5 50250	320
99	UNIV OF MINN	L SMITH	GSFC	R LYSAK	NGT 5 50293	320
99	UNIV OF TEXAS MED BRAN - GALVESTON	R BILICA	JSC	J R DAVIS	NCC 9 81	474
99	UNIV	L KEFFER	GSFC	J V TARANIK	NGT 5 40038	335
99	UNIV	L P CHAMBERS	GSFC	A HOLIAN	NGT 5 50084	476
99	UNIV	S GONDAS	JSC	B BUTLER	NCC 9 82	476
99	UNIV OF AKRON	F J MONTEGANI	GRC	R K EBY	NGT 3 52327	412
99	UNIV OF ALABAMA - BIRMINGHAM	B BETTS	GSFC	T WDOWIAK	NAG 5 9424	6
99	UNIV OF ALABAMA - BIRMINGHAM	B CAMPBELL	GSFC	D J WDOWIAK	NAG 5 4550	6
99	UNIV OF ALABAMA - HUNTSVILLE	D DETROYE	GSFC	J GREGORY	NCC 5 391	15
99	UNIV OF ALABAMA - HUNTSVILLE	D E DETROYE	GSFC	J GREGORY	NGT 5 40018	16
99	UNIV OF ALABAMA - HUNTSVILLE	G HULLETT-SMITH	MSFC	S J GRAVES	NAS 8 00180	14
99	UNIV OF ALABAMA - HUNTSVILLE	G S WILSON	MSFC	L R GREENWOOD	NAG 8 1613	14
99	UNIV OF ALABAMA - HUNTSVILLE	J F DOWDY	MSFC	G KARR	NAG 8 1388	14
99	UNIV OF ALABAMA - HUNTSVILLE	J F DOWDY	MSFC	G R KARR	NGT 8 52874	16
99	UNIV OF ALABAMA - HUNTSVILLE	J RAKOCZY	MSFC	B PETERS	NAS 8 00118	14
99	UNIV OF ALABAMA - HUNTSVILLE	J SHARBER	GSFC	N SINGH	NAG 5 9397	13
99	UNIV OF ALABAMA - HUNTSVILLE	K HERREN	MSFC	R FORK	NAG 8 1706	14
99	UNIV OF ALABAMA - HUNTSVILLE	L KEFFER	GSFC	J C GREGORY	NCC 5 165	15
99	UNIV OF ALABAMA - HUNTSVILLE	M WATSON	MSFC	Y TAKAHASHI	NAS 8 98226	15
99	UNIV OF ALABAMA - HUNTSVILLE	N PELLIS	JSC	K CHITTUR	NAG 8 1355	13
99	UNIV OF ALABAMA - HUNTSVILLE	N Q QURAISHI	JSC	J RUPERT	NCC 9 109	16
99	UNIV OF ALABAMA - HUNTSVILLE	S COLEMAN	MSFC	L R GREENWOOD	NCC 8 200	15
99	UNIV OF ALABAMA - UNIV	D GALLAWAY	GSFC	L FREEMAN	NAG 5 9388	17
99	UNIV OF ALABAMA - UNIV	D V GALLAWAY	HQ	M FREEMAN	NAG 5 4346	17
99	UNIV OF ALABAMA - UNIV	F SIX	MSFC	L M FREEMAN	NGT 8 52819	18

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99	UNIV OF ALABAMA - UNIV	J HARRINGTON	GSFC	M FREEMAN	NAG 5 9855	17
99	UNIV OF ALABAMA - UNIV	J R PRUITT	MSFC	L M FREEMAN	NAG 8 1724	18
99	UNIV OF ALASKA - FAIRBANKS	J SHARBER	GSFC	A OTTO	NAG 5 9457	20
99	UNIV OF ALASKA - FAIRBANKS	L KEFFER	GSFC	J G HAWKINS	NGT 5 40014	21
99	UNIV OF ALASKA - FAIRBANKS	M MEYER	GSFC	G PLUMLEY	NAG 5 9513	20
99	UNIV OF ARIZONA	A NURRIDIN	GSFC	F MELIA	NGT 5 50014	40
99	UNIV OF ARIZONA	A NURRIDIN	GSFC	M LLOYD-HART	NGT 5 50046	40
99	UNIV OF ARIZONA	A NURRIDIN	HQ	J LUNINE	NGT 5 50111	40
99	UNIV OF ARIZONA	A NURRIDIN	HQ	M J DRAKE	NGT 5 50132	41
99	UNIV OF ARIZONA	B BETTS	GSFC	T SWINDLE	NAG 5 9198	36
99	UNIV OF ARIZONA	B BETTS	GSFC	W BOYNTON	NAG 5 9425	36
99	UNIV OF ARIZONA	C HILL	SSC	R DAVIS	NAG13 99005	38
99	UNIV OF ARIZONA	D BOGAN	GSFC	D HUNTEN	NAG 5 8970	35
99	UNIV OF ARIZONA	D BOGAN	GSFC	E P TURTLE	NAG 5 8937	35
99	UNIV OF ARIZONA	D BOGAN	GSFC	F HERBERT	NAG 5 8952	35
99	UNIV OF ARIZONA	D BOGAN	GSFC	R GREENBERG	NAG 5 8941	35
99	UNIV OF ARIZONA	D DETROYE	GSFC	E H LEVY	NGT 5 40026	40
99	UNIV OF ARIZONA	G ASRAR	GSFC	B M HERMAN	NGT 5 30051	40
99	UNIV OF ARIZONA	J BOYCE	GSFC	M J DRAKE	NAG 5 9435	36
99	UNIV OF ARIZONA	J BREDEKAMP	GSFC	E MERENYI	NAG 5 9405	36
99	UNIV OF ARIZONA	J BREDEKAMP	GSFC	J HOLBERG	NAG 5 9408	36
99	UNIV OF ARIZONA	J BREDKAMP	GSFC	J A LARSEN	NAG 5 8095	33
99	UNIV OF ARIZONA	L SMITH	GSFC	A BURROWS	NGT 5 50300	41
99	UNIV OF ARIZONA	L SMITH	GSFC	C WALKER	NGT 5 50246	41
99	UNIV OF ARIZONA	L SMITH	GSFC	D DELUCA	NGT 5 50303	41
99	UNIV OF ARIZONA	L SMITH	GSFC	D MCCARTHY	NGT 5 50283	41
99	UNIV OF ARIZONA	L SMITH	GSFC	L ZIURYS	NGT 5 50282	41
99	UNIV OF ARIZONA	L SMITH	GSFC	R GREENBERG	NGT 5 50289	41
99	UNIV OF ARIZONA	L SMITH	GSFC	U FINK	NGT 5 50243	41
99	UNIV OF ARIZONA	R AVANT	GSFC	K RAMOHALLI	NAG 5 3837	28
99	UNIV OF ARIZONA	T MORGAN	GSFC	S LARSON	NAG 5 9485	36
99	UNIV OF ARKANSAS - LITTLE ROCK	D DETROYE	GSFC	K HUDSON	NCC 5 404	42
99	UNIV OF ARKANSAS - LITTLE ROCK	L KEFFER	GSFC	G M NORTHROP	NGT 5 40063	42
99	UNIV OF ARKS MAIN CAMP - FAYETTEVLE	M J LEON	ARC	T KRAL	NCC 2 5360	42
99	UNIV OF BALTIMORE	R HARTLE	GSFC	R CURRAN	NCC 5 494	252
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	GSFC	E HALLER	NGT 5 50048	81
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	GSFC	L BILDSTEN	NGT 5 50052	81
99	UNIV OF CALIFORNIA - BERKELEY	A NURRIDIN	HQ	P PRICE	NGT 5 50157	82
99	UNIV OF CALIFORNIA - BERKELEY	C C JORGENSEN	ARC	F S WERBLIN	NAG 2 1255	70
99	UNIV OF CALIFORNIA - BERKELEY	F S HERRERO	GSFC	D SIEGMUND	NAG 5 7615	75
99	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	D MATSON	NGT 5 30075	81
99	UNIV OF CALIFORNIA - BERKELEY	G ASRAR	GSFC	M FIRESTONE	NGT 5 30071	81
99	UNIV OF CALIFORNIA - BERKELEY	L CHAMBERS	GSFC	S HAMMOND	NGT 5 50072	82
99	UNIV OF CALIFORNIA - BERKELEY	L SMITH	GSFC	J GRAHAM	NGT 5 50245	82
99	UNIV OF CALIFORNIA - BERKELEY	M MEYER	GSFC	R SAYKALLY	NAG 5 7457	75
99	UNIV OF CALIFORNIA - BERKELEY	P CRANE	GSFC	D BUZASI	NAG 5 9318	77
99	UNIV OF CALIFORNIA - BERKELEY	R PFAFF	GSFC	C W CARLSON	NAG 5 99242	79
99	UNIV OF CALIFORNIA - DAVIS	A NURRIDIN	HQ	C A FULLER	NGT 5 50204	86
99	UNIV OF CALIFORNIA - DAVIS	B W MEESON	GSFC	C O QUALSET	NAG 5 8586	84
99	UNIV OF CALIFORNIA - DAVIS	B W MESSON	GSFC	W REISEN	NAG 5 7649	84
99	UNIV OF CALIFORNIA - DAVIS	L SMITH	GSFC	L H KELLOGG	NGT 5 50230	87
99	UNIV OF CALIFORNIA - DAVIS	L SMITH	GSFC	S CARLIP	NGT 5 50281	87
99	UNIV OF CALIFORNIA - DAVIS	M WEI	GSFC	S G USTIN-KENNEDY	NGT 5 30073	86
99	UNIV OF CALIFORNIA - DAVIS	R B WELCH	ARC	R B POST	NCC 2 905	85
99	UNIV OF CALIFORNIA - IRVINE	G ASRAR	GSFC	M PRATHER	NGT 5 30127	89
99	UNIV OF CALIFORNIA - IRVINE	L SMITH	GSFC	R E PURDY	NGT 5 50317	89
99	UNIV OF CALIFORNIA - IRVINE	R WILKINSON	GRC	P TABOREK	NAG 3 2389	87
99	UNIV OF CALIFORNIA - IRVINE	S ROBBINS	MSFC	A MCPHEARSON	NCC 8 148	89
99	UNIV OF CALIFORNIA - LOS ANGELES	A NURRIDIN	HQ	V EDGERTON	NGT 5 50202	96
99	UNIV OF CALIFORNIA - LOS ANGELES	C W LLOYD	JSC	B	NAG 9 1252	97
99	UNIV OF CALIFORNIA - LOS ANGELES	D BOGAN	GSFC	C T RUSSELL	NAG 5 8938	96
99	UNIV OF CALIFORNIA - LOS ANGELES	D BOGAN	GSFC	R THORNE	NAG 5 9074	96
99	UNIV OF CALIFORNIA - LOS ANGELES	G MADERA	LARC	R P TURCO	NAG 1 1899	90
99	UNIV OF CALIFORNIA - LOS ANGELES	J SHARBER	GSFC	C WU	NAG 5 9111	96
99	UNIV OF CALIFORNIA - LOS ANGELES	L SMITH	GSFC	D K JACOBS	NGT 5 50310	99
99	UNIV OF CALIFORNIA - LOS ANGELES	M MAIDEN	GSFC	R MUNTZ	NCC 5 301	98



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99	UNIV OF CALIFORNIA - LOS ANGELES	S MCGEE	HQ	P WANG	NGT 5 50220	99
99	UNIV OF CALIFORNIA - SAN DIEGO	A NURRIDIN	HQ	F BERMAN	NGT 5 50131	109
99	UNIV OF CALIFORNIA - SAN DIEGO	D J RASKY	ARC	J R ARNOLD	NCC 2 1034	108
99	UNIV OF CALIFORNIA - SAN DIEGO	E LINSTROM	GSFC	B CORNUELLE	NAG 5 8327	102
99	UNIV OF CALIFORNIA - SAN DIEGO	J A YODER	GSFC	P NILLER	NAG 5 8375	102
99	UNIV OF CALIFORNIA - SAN DIEGO	J BREDEKAMP	GSFC	B V JACKSON	NAG 5 9423	106
99	UNIV OF CALIFORNIA - SAN DIEGO	J BREDEKAMP	GSFC	R P PUETTER	NAG 5 9506	106
99	UNIV OF CALIFORNIA - SAN DIEGO	L KEFFER	GSFC	J A ARNOLD	NGT 5 40007	109
99	UNIV OF CALIFORNIA - SAN DIEGO	L SMITH	GSFC	G FULLER	NGT 5 50234	110
99	UNIV OF CALIFORNIA - SAN DIEGO	P MOUMNTJOY	HQ	D K RIDE	NCC 5 257	109
99	UNIV OF CALIFORNIA - SAN DIEGO	R CROUCH	GSFC	T JUNG	NAG 5 8768	105
99	UNIV OF CALIFORNIA - SAN DIEGO	R HATHAWAY	LARC	J M SCHOPPL	NGT 1 52133	109
99	UNIV OF CALIFORNIA - SAN DIEGO	T MORGAN	GSFC	N OMIDI	NAG 5 9314	106
99	UNIV OF CALIFORNIA - SANTA BARBARA	A NURRIDIN	GSFC	D ROBERTS	NGT 5 50010	115
99	UNIV OF CALIFORNIA - SANTA BARBARA	G ASRAR	GSFC	R SMITH	NGT 5 30063	115
99	UNIV OF CALIFORNIA - SANTA BARBARA	L SMITH	GSFC	J RUHL	NGT 5 50289	115
99	UNIV OF CALIFORNIA - SANTA BARBARA	M MAIDEN	GSFC	J FREW	NCC 5 302	115
99	UNIV OF CALIFORNIA - SANTA CRUZ	G ASRAR	GSFC	D SILVER	NGT 5 30074	119
99	UNIV OF CALIFORNIA - SANTA CRUZ	G ASRAR	GSFC	G VALLIS	NGT 5 90077	119
99	UNIV OF CALIFORNIA - SANTA CRUZ	Q. HANSEN	ARC	D L STANSBURY	NCC 2 1037	118
99	UNIV OF CHICAGO	A NURRIDIN	HQ	D SCHRAM	NGT 5 50142	208
99	UNIV OF CHICAGO	J BOYCE	GSFC	A M DAVIS	NAG 5 9510	208
99	UNIV OF CHICAGO	J BOYCE	GSFC	M HUMAYUN	NAG 5 9800	208
99	UNIV OF CHILE	W J BODIN	GSFC	E DIAZ	NAS 5 1925	541
99	UNIV OF CINCINNATI	A NURRIDIN	GSFC	P L RICHARDSON	NGT 5 50040	413
99	UNIV OF CINCINNATI	G ASRAR	GSFC	S ISLAM	NGT 5 30049	413
99	UNIV OF CINCINNATI	G ASRAR	GSFC	S ISLAM	NGT 5 30058	413
99	UNIV OF CINCINNATI	G ASRAR	GSFC	S ISLAM	NGT 5 30108	413
99	UNIV OF CINCINNATI	L SMITH	GSFC	J W PIKE	NGT 5 50265	413
99	UNIV OF CINCINNATI	T J DAVIS	ARC	G L SLATER	NGT 2 52205	413
99	UNIV OF COLORADO - BOULDER	A NURRIDIN	HQ	E G ZWEIBEL	NGT 5 50141	144
99	UNIV OF COLORADO - BOULDER	A POLAND	GSFC	A KIPLINGER	NAG 5 7062	134
99	UNIV OF COLORADO - BOULDER	B BETTS	GSFC	A L BETZ	NAG 5 9474	139
99	UNIV OF COLORADO - BOULDER	D BOGAN	GSFC	A HENDRIX	NAG 5 8940	138
99	UNIV OF COLORADO - BOULDER	D D DETROYE	GSFC	E R HANSEN	NGT 5 40028	144
99	UNIV OF COLORADO - BOULDER	F VILAS	JSC	A R HENDRIX	NAG 9 1209	141
99	UNIV OF COLORADO - BOULDER	G ASRAR	GSFC	J CURRY	NGT 5 30128	143
99	UNIV OF COLORADO - BOULDER	G ASRAR	HQ	J CURRY	NGT 5 30072	143
99	UNIV OF COLORADO - BOULDER	J SHARBER	GSFC	R ERGUN	NAG 5 9336	139
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	A BROWN	NGT 5 50241	144
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	C A WESSMAN	NGT 5 30180	143
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	C WESSMAN	NGT 5 50271	145
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	J E COLDWELL	NGT 5 50284	145
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	J FORBES	NGT 5 50232	144
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	J LINSKY	NGT 5 50242	144
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	L ESPOSITO	NGT 5 50273	145
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	R CANUP	NGT 5 50237	144
99	UNIV OF COLORADO - BOULDER	L SMITH	GSFC	R H DAVIS	NGT 5 50304	145
99	UNIV OF COLORADO - BOULDER	M MELLOTT	GSFC	R ERGUN	NAG 5 9353	139
99	UNIV OF COLORADO - BOULDER	M MELLOTT	GSFC	S ROBERTSON	NAG 5 9443	139
99	UNIV OF COLORADO - BOULDER	M WEI	GSFC	A R RAVISHANKARA	NGT 5 30076	143
99	UNIV OF COLORADO - BOULDER	M WEI	GSFC	G ASNER	NGT 5 30345	144
99	UNIV OF COLORADO - BOULDER	M WEI	GSFC	J RUNDLE	NGT 5 50102	144
99	UNIV OF COLORADO - BOULDER	M WEI	GSFC	M TOLBERT	NGT 5 50108	144
99	UNIV OF COLORADO - BOULDER	R AVANT	GSFC	R SU	NAG 5 4100	129
99	UNIV OF CONNECTICUT	C HILL	SSC	D CIVCO	NAG13 99001	147
99	UNIV OF DELAWARE - BARTOL RSRCH INST	L SMITH	GSFC	A M LENHOFF	NGT 5 50167	153
99	UNIV OF DELAWARE	J DASCH	HQ	N F NESS	NGT 5 40024	152
99	UNIV OF DISTRICT OF COLUMBIA	L RANDOLPH	GSFC	W R COLEMAN	NAG 5 4724	162
99	UNIV OF FLORIDA	A NURRIDIN	HQ	C M TELESCO	NGT 5 50018	177
99	UNIV OF FLORIDA	A NURRIDIN	HQ	R M ELSTON	NGT 5 50134	178
99	UNIV OF FLORIDA	A NURRIDIN	HQ	T ANDERSON	NGT 5 50074	177
99	UNIV OF FLORIDA	B CAMPBELL	GSFC	D GUSTAFSON	NAG 5 4547	175
99	UNIV OF FLORIDA	B W MESSON	GSFC	J F DAY	NAG 5 7684	175
99	UNIV OF FLORIDA	D BOGAN	GSFC	L KOLOKOLOVA	NAG 5 8844	175

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99	UNIV OF FLORIDA	G A SOFFEN	GSFC	D MASON	NGT 5 94	177
99	UNIV OF FLORIDA	L SMITH	GSFC	E A LADA	NGT 5 50233	178
99	UNIV OF FLORIDA	R KOCZOR	MSFC	D TREISE	NCC 8 149	177
99	UNIV OF GEORGIA	D BOGAN	GSFC	N G ADAMS	NAG 5 8951	182
99	UNIV OF HARTFORD	D DETROYE	GSFC	S L TOWNSEND	NGT 5 40031	148
99	UNIV OF HARTFORD	D DETROYE	GSFC	S TOWNSEND	NCC 5 390	148
99	UNIV OF HAWAII AT MANOA - HONOLULU	A NURRIDIN	GSFC	J E BARMES	NGT 5 50017	200
99	UNIV OF HAWAII AT MANOA - HONOLULU	D BOGAN	GSFC	G HANSEN	NAG 5 8983	197
99	UNIV OF HAWAII AT MANOA - HONOLULU	D DETROYE	GSFC	D TAYLOR	NGT 5 40021	199
99	UNIV OF HAWAII AT MANOA - HONOLULU	E T SCHWARTZ	HQ	P MOUGINIS-MARK	NGT 40020	199
99	UNIV OF HAWAII AT MANOA - HONOLULU	G ASRAR	GSFC	M BEVIS	NAG 5 6430	194
99	UNIV OF HAWAII AT MANOA - HONOLULU	J BOYCE	GSFC	G TAYLOR	NAG 5 3782	193
99	UNIV OF HAWAII AT MANOA - HONOLULU	J GRANT	GSFC	F P FANALE	NAG 5 8870	197
99	UNIV OF HAWAII AT MANOA - HONOLULU	J MCGARRY	GSFC	D HALL	NAG 5 32354	199
99	UNIV OF HAWAII AT MANOA - HONOLULU	L SMITH	GSFC	C FLETCHER	NGT 5 30179	199
99	UNIV OF HAWAII AT MANOA - HONOLULU	L T CAROFF	ARC	K MEECH	NAG 2 1293	193
99	UNIV OF HAWAII AT MANOA - HONOLULU	M BALTUCK	GSFC	P J MOUGINIS-MARK	NAG 5 4395	194
99	UNIV OF HAWAII AT MANOA - HONOLULU	M MEYER	GSFC	L BECKER	NAG 5 9511	198
99	UNIV OF HOUSTON - CLEAR LAKE	B A DEASON	JSC	J N MAIER	NGT 9 38	477
99	UNIV OF HOUSTON - CLEAR LAKE	N G ROBERTSON	JSC	J N MACIR	NGT 9 48	477
99	UNIV OF HOUSTON - DOWNTOWN	L ARMENDARIZ	JSC	R ALO	NAG 9 1018	477
99	UNIV OF IDAHO - MOSCOW	D DETROYE	HQ	R GILL	NCC 5 395	201
99	UNIV OF IDAHO - MOSCOW	D E DETROYE	GSFC	J TEASDALE	NGT 5 40058	201
99	UNIV OF IDAHO - MOSCOW	M J LEON	ARC	D H ATKINSON	NCC 2 914	200
99	UNIV OF ILLINOIS - CHICAGO CIRCLE	A NURRIDIN	HQ	M CHOI	NGT 5 50155	210
99	UNIV OF ILLINOIS - CHICAGO CIRCLE	M MEYER	GSFC	P DORAN	NAG 5 9427	209
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	B F CHAO	GSFC	X SONG	NAG 5 8871	213
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	L KEFFER	GSFC	W C SOLOMON	NGT 5 40030	215
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	L SMITH	GSFC	A SCHEELINE	NGT 5 50238	215
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	R CROUCH	GSFC	C LIU	NAG 5 8781	213
99	UNIV OF ILLINOIS AT URBANA-CHAMPAIGN	S MCGEE	HQ	R K IYER	NGT 5 50228	215
99	UNIV OF IOWA	A JACKMAN	MSFC	C BECKERMANN	NCC 8 94	227
99	UNIV OF IOWA	D BOGAN	GSFC	J MENIETTI	NAG 5 8918	226
99	UNIV OF KANSAS	A NURRIDIN	HQ	J HARRINGTON	NGT 5 50161	230
99	UNIV OF KANSAS	A NURRIDIN	HQ	R G PLUMB	NGT 5 50073	230
99	UNIV OF KANSAS	C HILL	SSC	E A MARTINKO	NAG13 99009	229
99	UNIV OF KANSAS	D DETROYE	GSFC	D DOWNING	NCC 5 415	229
99	UNIV OF KANSAS	D DETROYE	GSFC	D R DOWNING	NGT 5 40065	229
99	UNIV OF KANSAS	J DASCH	GSFC	D R DOWNING	NCC 5 168	229
99	UNIV OF KENTUCKY	C LEVIT	ARC	S B SINNOTT	NAG 2 1121	230
99	UNIV OF MARYLAND - COLLEGE PARK	C C JORGENSEN	ARC	S SHAMMA	NAG 2 1253	252
99	UNIV OF MARYLAND - COLLEGE PARK	C E COCKRELL	LARC	M LEWIS	NGT 1 52158	268
99	UNIV OF MARYLAND - COLLEGE PARK	C HILL	SSC	S D PRINCE	NAG13 99011	265
99	UNIV OF MARYLAND - COLLEGE PARK	E J MASUOKA	GSFC	D ROY	NCC 5 449	267
99	UNIV OF MARYLAND - COLLEGE PARK	G A SOFFEN	GSFC	M GAVRILAS	NGT 5 62	268
99	UNIV OF MARYLAND - COLLEGE PARK	K OBLIVIE	GSFC	G GLOECKLER	NAG 5 7111	258
99	UNIV OF MARYLAND - COLLEGE PARK	M MAIDEN	GSFC	J TOWNSENDE	NCC 5 300	267
99	UNIV OF MARYLAND - COLLEGE PARK	M NOLAN	GSFC	D A	NAG 5 8207	260
99	UNIV OF MARYLAND - COLLEGE PARK	M PHELPS	GSFC	G L GEOFFROY	NAG 5 9228	263
99	UNIV OF MARYLAND - COLLEGE PARK	M S BURRELL	GSFC	M GAVRILAS	NAG 5 9560	263
99	UNIV OF MARYLAND - EASTERN SHORE	M STOUTSENBERGER	GSFC	G SINGH	NAG 5 9243	269
99	UNIV OF MARYLAND - EASTERN SHORE	R WESTCOTT	GSFC	D NAGCHAUDRI	NGT 5 64	269
99	UNIV OF MARYLAND BALTIMORE COUNTY	D MENCHAN	GSFC	E B BAKER	NAG 5 8640	270
99	UNIV OF MARYLAND BALTIMORE COUNTY	D MENCHAN	GSFC	E B BAKER	NAG 5 9954	271
99	UNIV OF MARYLAND BALTIMORE COUNTY	D MENCHEN	GSFC	HIABROWSKI	NAG 5 2751	269
99	UNIV OF MARYLAND BALTIMORE	N MAYNARD	GSFC	D W FORESMAN	NAG 5 4254	269
99	UNIV OF MIAMI	M Y WEI	GSFC	O B BROWN	NGT 5 30222	179
99	UNIV OF MICHIGAN - ANN ARBOR	A NURRIDIN	GSFC	J BOYD	NGT 5 50024	314
99	UNIV OF MICHIGAN - ANN ARBOR	J BREDEKAMP	GSFC	M COMBI	NAG 5 9464	311
99	UNIV OF MICHIGAN - ANN ARBOR	J BREDEKAMP	GSFC	T GOMBOSI	NAG 5 9406	311
99	UNIV OF MICHIGAN - ANN ARBOR	L KEFFER	GSFC	R M JOHNSON	NGT 5 40062	314
99	UNIV OF MICHIGAN - ANN ARBOR	L SMITH	GSFC	L FISK	NGT 5 50255	314
99	UNIV OF MICHIGAN - ANN ARBOR	L SMITH	HQ	G BALLESTER	NGT 5 50154	314
99	UNIV OF MICHIGAN - ANN ARBOR	R HOFFMAN	GSFC	A NAGEY	NAG 5 7557	309
99	UNIV OF MISSISSIPPI - UNIV	D DETROYE	GSFC	P SUKANEK	NCC 5 405	324

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99	UNIV OF MISSOURI - COLUMBIA	A NURRIDIN	HQ	M LAUGHLIN	NGT 5 50205	326
99	UNIV OF MISSOURI - COLUMBIA	G ASRAR	GSFC	X ZHAUNG	NAG 5 6283	325
99	UNIV OF MISSOURI - COLUMBIA	M MEYER	GSFC	F SCHMIDT	NAG 5 9555	325
99	UNIV OF MISSOURI - ROLLA	C WEY	GRC	P D WHITEFIELD	NAG 3 2257	326
99	UNIV OF MISSOURI - ROLLA	L KEFFER	GSFC	B P SELBERG	NGT 5 40060	327
99	UNIV OF MONTANA	M Y WEI	HQ	R J FIELD	NGT 5 50225	333
99	UNIV OF NEBRASKA - LINCOLN	A NURRIDIN	HQ	SAMAL	NGT 5 50098	335
99	UNIV OF NEBRASKA - LINCOLN	D L KALE	GSFC	D RUNDQUIST	NAG 5 4217	334
99	UNIV OF NEBRASKA - LINCOLN	H CARR	SSC	RUNDQUIST	NCC13 98003	334
99	UNIV OF NEBRASKA - LINCOLN	J DASCH	HQ	B D BOWEN	NCC 5 169	334
99	UNIV OF NEBRASKA - LINCOLN	M Y WEI	GSFC	M BLUM	NGT 5 30358	335
99	UNIV OF NEBRASKA - LINCOLN	R E GABRYS	GSFC	D C RUNDQUIST	NCC 5 430	334
99	UNIV OF NEBRASKA - LINCOLN	D DETROYE	HQ	B BROWN	NCC 5 401	335
99	UNIV OF NEBRASKA-OMAHA	L KEFFER	GSFC	B D BOWEN	NGT 5 40037	335
99	UNIV OF NEBRASKA-OMAHA	J BREDEKAMP	GSFC	S LATIFI	NAG 5 9489	335
99	UNIV OF NEVADA - LAS VEGAS	D DETROYE	GSFC	J TARANKI	NCC 5 397	336
99	UNIV OF NEVADA SYSTEM ADMN	L KEFFER	GSFC	D S BARTLETT	NGT 5 40010	343
99	UNIV OF NEW HAMPSHIRE - DURHAM	M MEYER	GSFC	E MOORE	NAG 5 6793	340
99	UNIV OF NEW HAMPSHIRE - DURHAM	M WEITH	GSFC	J E DIBB	NGT 5 30349	343
99	UNIV OF NEW HAMPSHIRE - DURHAM	A TUYAHOV	GSFC	S MORAIN	NCC 5 309	358
99	UNIV OF NEW MEXICO-ALBUQUERQUE	B WHITE	HQ	M JAMSHIDI	NCC 5 350	358
99	UNIV OF NEW MEXICO-ALBUQUERQUE	G S LEE	ARC	M JAMSHIDI	NAG 2 1196	356
99	UNIV OF NEW MEXICO-ALBUQUERQUE	L ARMENDARIZ	JSC	H E NEWSOM	NAG 9 1017	358
99	UNIV OF NEW MEXICO-ALBUQUERQUE	M WEI	GSFC	B MILNE	NGT 5 30227	359
99	UNIV OF NEW MEXICO-ALBUQUERQUE	R CROUCH	GSFC	J BRINKER	NAG 5 8821	357
99	UNIV OF NEW MEXICO-ALBUQUERQUE	W H MILLER	GSFC	G MAKI	NAG 5 7006	357
99	UNIV OF NEW ORLEANS	F SIX	MSFC	J J HEGSETH	NAG 8 1116	237
99	UNIV OF NORTH CAROLINA - CHAPEL HILL	L SMITH	GSFC	R W MURRAY	NGT 5 50311	395
99	UNIV OF NORTH CAROLINA - CHAPEL HILL	L SMITH	GSFC	T M WHITMORE	NGT 5 30177	395
99	UNIV OF NORTH CAROLINA	J F DOWDY	MSFC	R D FORSYTHE	NAG 8 1314	395
99	UNIV OF NORTH DAKOTA	A TUYAHOV	GSFC	G SEIELSTAD	NCC 5 310	397
99	UNIV OF NORTH DAKOTA	C HILL	SSC	P R ZIMMERMAN	NAG13 99006	397
99	UNIV OF NORTH DAKOTA	D DETROYE	GSFC	C WOOD	NCC 5 399	397
99	UNIV OF NORTH DAKOTA	L KEFFER	GSFC	C A WOOD	NGT 5 40034	397
99	UNIV OF NORTH DAKOTA	N LAL	GSFC	C WOOD	NAG 5 8681	397
99	UNIV OF NORTH TEXAS HLTH SCI	A NURRIDIN	HQ	M SMITH	NGT 5 50179	477
99	UNIV OF NOTRE DAME	R LAWRENCE	GRC	S JOHNSON	NAG 3 2418	221
99	UNIV OF OKLAHOMA - NORMAN	D DETROYE	GSFC	V DUC-SNOWDEN	NCC 5 398	419
99	UNIV OF OKLAHOMA - NORMAN	J DASCH	GSFC	S DUCA	NCC 5 171	419
99	UNIV OF OKLAHOMA - NORMAN	L KEFFER	GSFC	V DUCA	NGT 5 40013	419
99	UNIV OF PENNSYLVANIA	A NURRIDIN	HQ	D A HAMMER	NGT 5 50267	441
99	UNIV OF PENNSYLVANIA	R CROUCH	GSFC	D N METAXAS	NAG 5 8787	440
99	UNIV OF PITTSBURGH	A NURRIDIN	HQ	B YATES	NGT 5 50029	443
99	UNIV OF PITTSBURGH	L SMITH	GSFC	B J YATES	NGT 5 50256	443
99	UNIV OF PITTSBURGH	L SMITH	GSFC	B J YATES	NGT 5 50292	443
99	UNIV OF PITTSBURGH	L SMITH	GSFC	C L COLBY	NGT 5 50318	443
99	UNIV OF PITTSBURGH	L SMITH	GSFC	M DRUZDZEL	NGT 5 50252	443
99	UNIV OF PITTSBURGH	P VAUGHN	MSFC	C TALLEY	NAG 8 1360	442
99	UNIV OF PUERTO RICO - MAYAGUEZ	B WHITE	HQ	R VASQUEZ	NCC 5 340	540
99	UNIV OF PUERTO RICO - MAYAGUEZ	D DETROYE	GSFC	D G WEINER	NGT 5 40012	540
99	UNIV OF PUERTO RICO - MAYAGUEZ	D WILLIAMS	GSFC	R FERNANDEZ-SEIN	NCC 5 252	540
99	UNIV OF PUERTO RICO - MAYAGUEZ	J DIGGS	KSC	B RAMIREZ	NAG10 243	540
99	UNIV OF PUERTO RICO HUMACAO U COL	M MATEU	GSFC	A M GIERBOLINI	NAG 5 3473	540
99	UNIV OF PUERTO RICO-RIO PIEDRAS	D DETROYE	GSFC	B R WEINER	NCC 5 407	540
99	UNIV OF PUERTO RICO-RIO PIEDRAS	J MALONE	GSFC	B WEINER	NAG 5 6428	540
99	UNIV OF REDLANDS	M PHELPS	HQ	P DOOLITTLE	NAG 5 9570	119
99	UNIV OF SOUTH ALABAMA	J F DOWDY	MSFC	P KULKARNI	NAG 8 1387	18
99	UNIV OF SOUTH CAROLINA-COLUMBIA	D DETROYE	GSFC	J D ODOM	NCC 5 174	452
99	UNIV OF SOUTH CAROLINA-COLUMBIA	N SOVIK	SSC	J JENSEN	NCC13 00003	452
99	UNIV OF SOUTH FLORIDA	M WEI	GSFC	P COBLE	NGT 5 30346	181
99	UNIV OF SOUTHERN CALIFORNIA	P DOTY	MSFC	P RONNEY	NAG 8 1701	122
99	UNIV OF SOUTHERN CALIFORNIA	P DOTY	MSFC	S SADHAL	NAG 8 1683	122
99	UNIV OF SOUTHERN CALIFORNIA	P E FRIEDLAND	ARC	S SCHAAL	NAG 2 1256	119
99	UNIV OF TENNESSEE - KNOXVILLE	L SMITH	GSFC	H Y MCSWEEN	NGT 5 50286	458

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99	UNIV OF TENNESSEE - KNOXVILLE	R CROUCH	GSFC	G S SAYLER	NAG 5 8780	457
99	UNIV OF TEXAS - AUSTIN	D D DETROYE	GSFC	B D TAPLEY	NGT 5 40053	484
99	UNIV OF TEXAS - AUSTIN	D J PEARSON	JSC	R H BISHOP	NGT 9 20	484
99	UNIV OF TEXAS - AUSTIN	H C MANDELL	JSC	B D TAPLEY	NAG 9 1080	482
99	UNIV OF TEXAS - AUSTIN	J LABRECQUE	GSFC	B D TAPLEY	NAG 5 9888	481
99	UNIV OF TEXAS - AUSTIN	J LABRECQUE	GSFC	B TAPLEY	NAG 5 8308	479
99	UNIV OF TEXAS - AUSTIN	J MCGARRY	GSFC	P J SHELLUS	NAG 5 32897	483
99	UNIV OF TEXAS - AUSTIN	K SMITH	GSFC	M CRAWFORD	NGT 5 50239	484
99	UNIV OF TEXAS - AUSTIN	L SMITH	GSFC	G J HILL	NGT 5 50301	484
99	UNIV OF TEXAS - DALLAS	A NURRIDIN	GSFC	L TAAMIL	NGT 5 50058	485
99	UNIV OF TEXAS - DALLAS	B CAMPBELL	GSFC	D H HOFFMAN	NAG 5 4844	484
99	UNIV OF TEXAS - DALLAS	J BREDEKAMP	GSFC	M HAIRSTON	NAG 5 9297	485
99	UNIV OF TEXAS - EL PASO	B DELUWALA	KSC	R QUINTANA	NAG10 225	486
99	UNIV OF TEXAS - EL PASO	B WHITE	GSFC	S BLAKE	NCC 5 488	486
99	UNIV OF TEXAS - EL PASO	E PAYLOR	GSFC	S STARKS	NCC 5 498	486
99	UNIV OF TEXAS - EL PASO	J BRADEN	DFRC	R WICKER	NAG 4 150	485
99	UNIV OF TEXAS - EL PASO	P SAKIMOTO	GSFC	S A STARKS	NCC 5 209	486
99	UNIV OF TEXAS - EL PASO	R D EASON	GSFC	M A KOLITSKY	NCC 5 207	486
99	UNIV OF TEXAS AT BROWNSVILLE	B WHITE	GSFC	J TELESE	NCC 5 438	487
99	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	J GARCIA	NAG 9 1238	487
99	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	O RIVAS	NAG 9 1054	487
99	UNIV OF TEXAS AT BROWNSVILLE	L ARMENDARIZ	JSC	R RAMIREZ	NAG 9 801	487
99	UNIV OF TEXAS AT SAN ANTONIO	B J COLLINS	ARC	A T CHRONPOULOS	NAG 2 1383	487
99	UNIV OF TEXAS AT SAN ANTONIO	M J LEON	ARC	R F SINCOVEC	NAG 2 6040	487
99	UNIV OF THE INCARNATE WORD	B WHITE	GSFC	J BEAUFORD	NCC 5 485	487
99	UNIV OF TOLEDO	R CROUCH	GSFC	B GONG	NAG 5 8785	415
99	UNIV OF TURABO	M MATEU	GSFC	M MODESTO	NAG 5 8323	541
99	UNIV OF UTAH	A NURRIDIN	GSFC	K SHARP	NGT 5 50088	490
99	UNIV OF UTAH	D DETROYE	GSFC	D WESTENSKOW	NGT 5 40066	490
99	UNIV OF VERMONT	D DETROYE	GSFC	W LAKIN	NCC 5 384	493
99	UNIV OF VERMONT	J BOYCE	GSFC	T RUSHMER	NAG 5 9532	492
99	UNIV OF VERMONT	J DASCH	HQ	W D LAKIN	NGT 5 40045	493
99	UNIV OF VERMONT	J F DOWDY	MSFC	G MIRCHANDANI	NAG 8 1281	492
99	UNIV OF VIRGINIA	L SMITH	GSFC	M C WIENER	NGT 5 50305	511
99	UNIV OF VIRGINIA	M MEYER	GSFC	S MACKO	NAG 5 9758	510
99	UNIV OF WASHINGTON	A NURRIDIN	GSFC	G LAKE	NGT 5 50078	525
99	UNIV OF WASHINGTON	C W LLOYD	JSC	F H SHEEHAN	NAG 9 1258	523
99	UNIV OF WASHINGTON	D HARM	JSC	D E PARKER	NCC 9 56	524
99	UNIV OF WASHINGTON	E T SCHWARTZ	HQ	G K PARKS	NGT 40011	524
99	UNIV OF WASHINGTON	G ASRAR	GSFC	D HEGG	NGT 5 30121	525
99	UNIV OF WASHINGTON	G L MADDREA	LARC	J R HOLTON	NAG 1 2183	517
99	UNIV OF WASHINGTON	K OGILVIE	GSFC	G PARKS	NAG 5 7114	520
99	UNIV OF WASHINGTON	L KEFFER	GSFC	G K PARKS	NGT 5 40017	525
99	UNIV OF WASHINGTON	L SMITH	GSFC	J BARDEEN	NGT 5 50298	525
99	UNIV OF WASHINGTON	L SMITH	GSFC	J DALCANTON	NGT 5 50299	525
99	UNIV OF WASHINGTON	L SMITH	GSFC	R WINGLEE	NGT 5 50285	525
99	UNIV OF WASHINGTON	M WEI	GSFC	C NEWHALL	NGT 5 98	524
99	UNIV OF WASHINGTON	M WEI	GSFC	D LETTENMAIER	NGT 5 30120	525
99	UNIV OF WASHINGTON	R A BINDSCHADLER	GSFC	D P WINEBRENNER	NAG 5 3078	518
99	UNIV OF WASHINGTON	R CROUCH	GSFC	V VOGEL	NAG 5 8784	522
99	UNIV OF WEST FLORIDA	B H WHITAKER	ARC	A J CANAS	NCC 2 1036	181
99	UNIV OF WEST FLORIDA	R CROUCH	GSFC	A K RAJ	NAG 5 8782	181
99	UNIV OF WISCONSIN - MADISON	A N URRIDDEN	HQ	TIMBIE	NGT 5 50039	537
99	UNIV OF WISCONSIN - MADISON	A NURRIDIN	HQ	B D SAVAGE	NGT 5 50121	537
99	UNIV OF WISCONSIN - MADISON	G ASRAR	GSFC	J FOLEY	NGT 5 30119	537
99	UNIV OF WISCONSIN - MADISON	J BREDEKAMP	GSFC	W T SANDERS	NAG 5 9483	534
99	UNIV OF WISCONSIN - MADISON	J H RAHE	HQ	G DIAK	NAG13 98008	535
99	UNIV OF WISCONSIN - MADISON	L SMITH	GSFC	J FOLEY	NGT 5 30178	537
99	UNIV OF WISCONSIN - MADISON	L SMITH	GSFC	J S GALLAGHER	NGT 5 50285	537
99	UNIV OF WISCONSIN - MADISON	L SMITH	HQ	S GOWER	NGT 5 50180	537
99	UNIV OF WISCONSIN - MADISON	N SOVIK	SSC	T LILLESAND	NCC13 00004	537
99	UNIV OF WISCONSIN - MILWAUKEE	D E DETROYE	GSFC	J W NORBURY	NGT 5 40039	538
99	UNIV OF WYOMING	D BOGAN	GSFC	R N HOWELL	NAG 5 8817	539
99	UNIV OF WYOMING	DDETROYE	GSFC	P JOHNSON	NCC 5 414	539
99	UNIV OF WYOMING	G L MADDREA	LARC	T DESHLER	NAG 1 2184	538
99	UNIV OF WYOMING	J GRANT	GSFC	R HOWELL	NAG 5 8804	539

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99	UNIV OF WYOMING	L KEFFER	GSFC	P E JOHNSON	NGT 5 40008	539
99	UTAH STATE UNIV	D DETROYE	GSFC	D BAKER	NGT 5 40047	492
99	UTAH STATE UNIV	N SOVIK	SSC	C HOLLE	NCC13 00005	492
99	VA POLYTECH INST & ST UNIV	J BARTHELEMY	LARC	B GROSSMAN	NGT 1 52155	515
99	VA POLYTECH INST & ST UNIV	L SMITH	GSFC	B M KLEINER	NGT 5 50260	516
99	VA POLYTECH INST & ST UNIV	L SMITH	GSFC	W HERBERT	NGT 5 50262	516
99	VA POLYTECH INST & ST UNIV	R A HATHAWAY	LARC	D M MOORE	NGT 1 52145	515
99	VALDOSTA STATE UNIV	W B BALL	LARC	L A MCGLINN	NAG 1 2039	192
99	VANDERBILT UNIV	L KEFFER	GSFC	A M STRAUSS	NGT 5 40054	460
99	VANDERBILT UNIV	P DOTY	MSFC	K A DEBELAK	NAG 8 1662	459
99	VANDERBILT UNIV	P DOTY	MSFC	R J BAYUZICK	NAG 8 1677	459
99	VANDERBILT UNIV	R HOFFMAN	GSFC	E DAVID	NAG 5 7556	459
99	VOORHEES COLLEGE	C PERSON	GSFC	C SMITH	NAG 5 9624	452
99	VOORHEES COLLEGE	W BALL	LARC	J QIN	NAG 1 1931	452
99	WASHINGTON UNIV - ST	B CAMPBELL	GSFC	D A HASKIN	NAG 5 4642	328
99	WASHINGTON UNIV - ST	D E SMITH	GSFC	R J PHILLIPS	NAG 5 4435	327
99	WASHINGTON UNIV - ST	L SMITH	GSFC	M ISRAEL	NGT 5 50240	330
99	WAYNE STATE UNIV	B WOOLFORD	JSC	L ZAMORANO	NAG 9 1183	315
99	WEST VIRGINIA UNIV	D DETROYE	GSFC	M JARAIEDI	NCC 5 406	528
99	WEST VIRGINIA UNIV	D OZBURN	ARC	K DAVIS	NCC 2 6043	527
99	WEST VIRGINIA UNIV	G ASRAR	GSFC	S KITE	NGT 5 50103	528
99	WEST VIRGINIA UNIV	L KEFFER	GSFC	M JARAIEDI	NGT 5 40055	528
99	WESTERN ILLINOIS UNIV	D SIX	MSFC	L H TICHENOR	NAG 8 1207	215
99	WESTERN KENTUCKY UNIV	D DETROYE	GSFC	R HACKNEY	NCC 5 222	232
99	WESTERN KENTUCKY UNIV	D DETROYE	GSFC	R HACKNEY	NCC 5 396	232
99	WESTERN KENTUCKY UNIV	L KEFFER	GSFC	R HACKNEY	NGT 5 40051	232
99	WESTERN MICHIGAN UNIV	D S KEENAN	KSC	W J HOMAN	NAG10 279	315
99	WHEELING JESUIT UNIV	F DURSO	HQ	T ACKER	NAGW 2486	528
99	WHEELING JESUIT UNIV	J ROOT	HQ	L W RIVER	NCCW 65	528
99	WHEELING JESUIT UNIV	M PHELPS	GSFC	D MILLER	NCC 5 203	528
99	WHEELING JESUIT UNIV	N CHEEKS	GSFC	J P ALLEN	NCC 5 440	528
99	WHEELING JESUIT UNIV	S CANRIGHT	GSFC	N NAIK	NCC 5 451	528
99	WORCESTER POLYTECH INST	M R BROWN	GSFC	F J LOOFT	NAG 5 8578	302
99	WORCESTER POLYTECH INST	M R BROWN	GSFC	F J LOOFT	NAG 5 9754	302
99	XAVIER UNIV - LOUISIANA	A JOYCE	JSC	S O	NAG13 98006	238
99	XAVIER UNIV - LOUISIANA	N SULLIVAN	SSC	R P HALE	NAG13 53	238
99	YALE UNIV	A NURRIDDIN	HQ	PROBER	NGT 5 50042	150
99	YALE UNIV	L SMITH	GSFC	S E ZEPF	NGT 5 50287	151











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